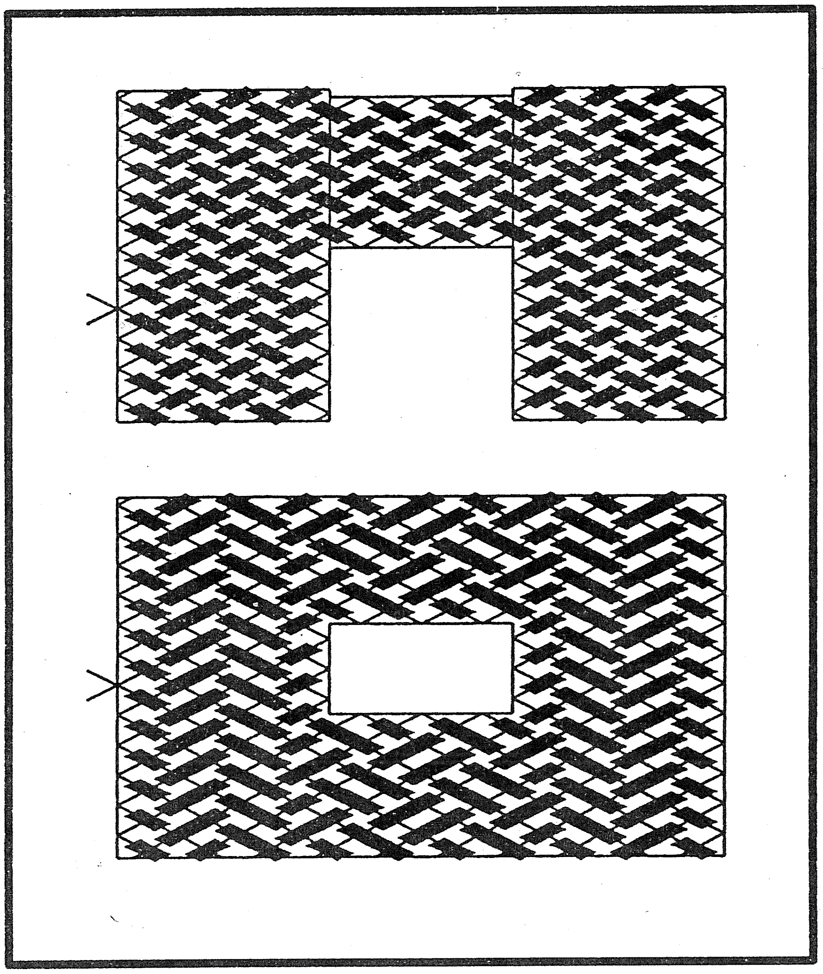
SPECIAL BRAID FORMS Pt.2
CFC BRAIDS AND CWH BRAIDS



A.G. Schaake

11

Topics in Braiding Theory and Practice

Pamphlet No.10 Pt.2

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Special Braid Forms Pt.2

A.G. Schaake

Abstract:

The Regular CFC Braids and CWH Braids, and especially the Regular C_1F*C_1 Knots and CWH* Braids are briefly discussed. The main purpose of this Pamphlet is to provide a small data base for the more commonly encountered Regular C_1F*C_1 Knots and the 1-string and 2-string CWH* Braids. The data for the Regular C_1F*C_1 Knots are presented in general string-run diagrams, while the data for the Regular 1-string and 2-string CWH* braids are given in the form of tables.

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September, 1995.

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INTRODUCTION

In this second part of Pamphlet No. 10 we shall discuss another important braid-form which finds several applications in braidwork. The braid-form we shall discuss belongs to the **CFC Braids**. A CFC Braid consists of three integrated components, namely two **Cylindrical Braids** which are joined by a **Flat Braid**, hence the name **CFC Braids**. If each of these three components is a Regular Braid, hence each Cylindrical Braid is a Regular Cylindrical Braid and the Flat Braid is a Regular Flat Braid, then the CFC Braid is a Regular CFC Braid.

It will be obvious that in general *the number of transition-points* at each end of the Regular Flat Braid component has to be **equal or less** than *half its number of parts.*

In a Regular CF*C Braid, the Regular Flat Braid component has either no end bights or has symmetrically placed end bights (symmetrically relative to the length-wise centre-line of the flat braid component), and hence the difference between *half the number of parts* of the Regular Flat Braid component and *the number of transition-points* must be either **zero** or **even.**

In a Regular $C_1F^*C_1$ Braid the two Regular Cylindrical Braid components have *identical string-runs*, while a Regular $C_1F^*C_1$ **Knot** is a single-string Regular $C_1F^*C_1$ Braid.

Note that nothing has been defined with respect to the coding, and hence we may give each of the three integrated components a different type of coding.

An Example of a Regular $C_1F^*C_1$ Knot, wherein each component has received a Casa-coding, is depicted in Fig. 1.

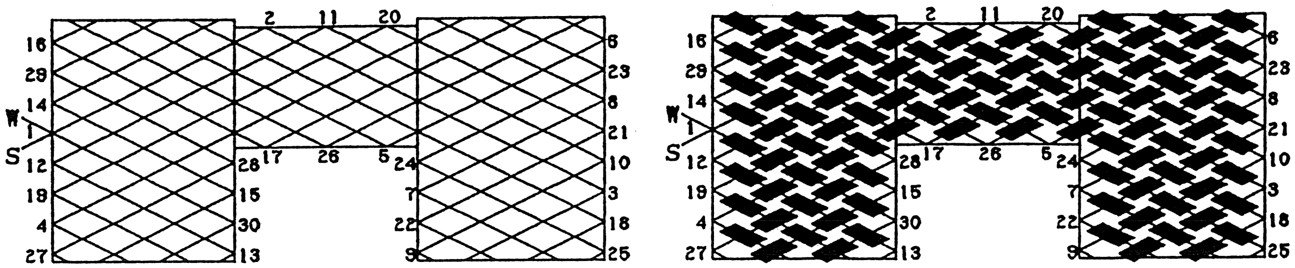


Fig. 1 — An Example of a Casa-coded Regular $C_1F^*C_1$ Knot.

In the Example shown, the 8-part Regular Flat Braid component goes at either end via 4 transition-points over into a Regular Cylindrical Braid, hence there are here no bight-points at the ends of the Regular Flat Braid component; consequently the number of transition-points at either end of such a Regular Flat Braid component is equal to half the number of its parts.

A typical application for the Regular $C_1F^*C_1$ Knots is to serve as a **wear-braid** in bridles where it protects a flat braid, used as cheek-strap, from wear caused by the bit-ring. Obviously, in such an application the braiding material used for the Regular $C_1F^*C_1$ Knot must not be coarse or bulky.

When for the Regular Flat Braid component of the Regular CF*C Braid, in which both Regular Cylindrical Braid components have the same number of bights, the difference between *half its number of parts* and *its number of transition-points* is **zero**, the Regular CF*C Braid may also be seen as a Regular Cylindrical Braid with a square or rectangular hole in its cylindrical surface. Consequently we also call such a Regular CF*C Braid a **Regular CWH Braid**. Hence a Regular $C_1F^*C_1$ Braid wherein the number of transition-points is equal to half the number of parts of its Regular Flat Braid component, is also a Regular Cylindrical Braid with a **central** square or rectangular hole in its cylindrical surface. Such Regular $C_1F^*C_1$ Braids are also called **Regular CWH* Braids**.

With suitable dimensions, the Regular CWH* Braids are of great value as a rudder position-indicator on the steering-wheels of yachts (the cylindrical braid fits the rim and the appropriate spoke goes through the hole); this is their typical application. Many of their two-string varieties give very beautiful patterns when different colours for the two strings are used. Since the commonly used braiding material in such an application is round cord, the CWH* braid is normally braided in two-ply (duplex) or three-ply (triplex) form, which enhances these beautiful patterns even further.

An endless extension of such a CWH* Braid along the whole circumferential length of the steering-wheel rim, with the provision of the necessary additional holes for the further spokes, creates a specific family of **Wheelknots**. These Wheelknots are discussed in Pamphlet No. 12 and its Supplement.

Several further braid-forms resulting from logical extensions of the CFC Braids and the CWH Braids become self-evident. Examples of the most simple extensions of CFC Braids are the $C\widetilde{C}C$ Braids, used as movable keepers on flat braids, and the $CF\widetilde{C}FC$ Braids used as keepers on ranger-style belts. In these braids, the cylindrical $\widetilde{C}$-component and the two cylindrical C-components lie on the opposite face-sides of the flat braid components.

In this Pamphlet we shall restrict our discussion mainly to the Regular $C_1F^*C_1$ Knots, and the 1-string and 2-string Regular CWH* Braids.

Although the Regular CWH* Braids are members of the Regular $C_1F^*C_1$ Braids, we shall present their respective data in a form which typically represents their application.

In order to facilitate the use of the relevant data associated with the 1-string Regular $C_1F^*C_1$ Braids (the Regular $C_1F^*C_1$ Knots), this data for the more commonly encountered flat braid sizes is presented in general string-run diagrams which reflect the typical use of these braids.

The relevant data associated with the 1-string and 2-string Regular CWH* Braids are presented in tables for some of the more commonly encountered hole-sizes. *These tables should not be confused with the tables for the basic string-run length wheelknots in Pamphlet No. 12, with which they have some interesting relationships.*

Most proofs of these relationships are very simple and straight forward, as are the proofs of the various other relationships between valid parameter values for the Regular CFC Braids, and in particular for the Regular $C_1F^*C_1$ Braids and Regular CWH* Braids. Nevertheless, they have not been included in this Pamphlet since they are most likely of little interest and/or value to the braiding artisan, and since their inclusion would unnecessarily increase the size of this Pamphlet and hence its price and postal costs. Some of the proofs concerning the more general relationships provide however a good testing ground for the ability of mathematicians.

Computer software and calculation procedures associated with the braid-forms discussed in this Pamphlet will be dealt with in a Supplement to this Pamphlet.

THE REGULAR $C_1F^*C_1$ KNOTS

In the *Introduction* we already defined the Regular $C_1F^*C_1$ Knot as being a single-string Regular $C_1F^*C_1$ Braid. A Regular $C_1F^*C_1$ Braid consists of three integrated components: a Regular Flat Braid which joins two Regular Cylindrical Braids with idential string-runs; the Regular Flat Braid component has either no end bights or has symmetrically placed end bights. The Regular Flat Braid goes, via x transition-points at either end, over into the Regular Cylindrical Braids which have identical string-runs. Each of the two Regular Cylindrical Braids has p-parts and B-bights. The Regular Flat Braid has p_{F}-parts, and its length is equal to b_{F}-bights $= 2b_{F}$-parts $= P^*$-parts.

As mentioned in the *Introduction*, when $2x = p_{F}$, the Regular $C_1F^*C_1$ Braid may also be regarded as a Regular Cylindrical Braid with a centrally placed hole in its cylindrical surface. The Regular Cylindrical Braids with a hole in their cylindrical surface are called the **Regular CWH Braids**, and the Regular Cylindrical Braids with a **centrally** placed hole in their cylindrical surface are called the **Regular CWH* Braids**, while their single-string varieties are called the **Regular CWH* Knots**.

In Regular CWH* Braids, the Regular Cylindrical Braid with a centrally placed hole in its cylindrical surface, has B-bights and P-parts. The centrally placed hole has b_v-bights vertical and b_h-bights horizontal. Hence the parameter relationships between the Regular $C_1F^*C_1$ Braids with $x = \frac{p_F}{2}$ and the Regular CWH* Braids are:

$$B = B\,, \qquad P^* = 2b_{F} = 2b_h\,,$$

$$2p + P^* = P\,, \qquad B - x = B - \frac{p_F}{2} = b_v\,.$$

The uppermost left-hand diagram in Fig. 2 depicts the string-run of the Regular $C_1F^*C_1$ Knot shown in Fig. 1, while the uppermost right-hand diagram depicts its grid-diagram ($B = 8$; $p = 6$; $P^* = 6$; $p_{F} = 2x = 8$). The two lowermost diagrams in Fig. 2 depict this same knot as a Regular CWH* Knot ($B = 8$; $P = 18$; $b_v = 4$; $b_h = 3$).

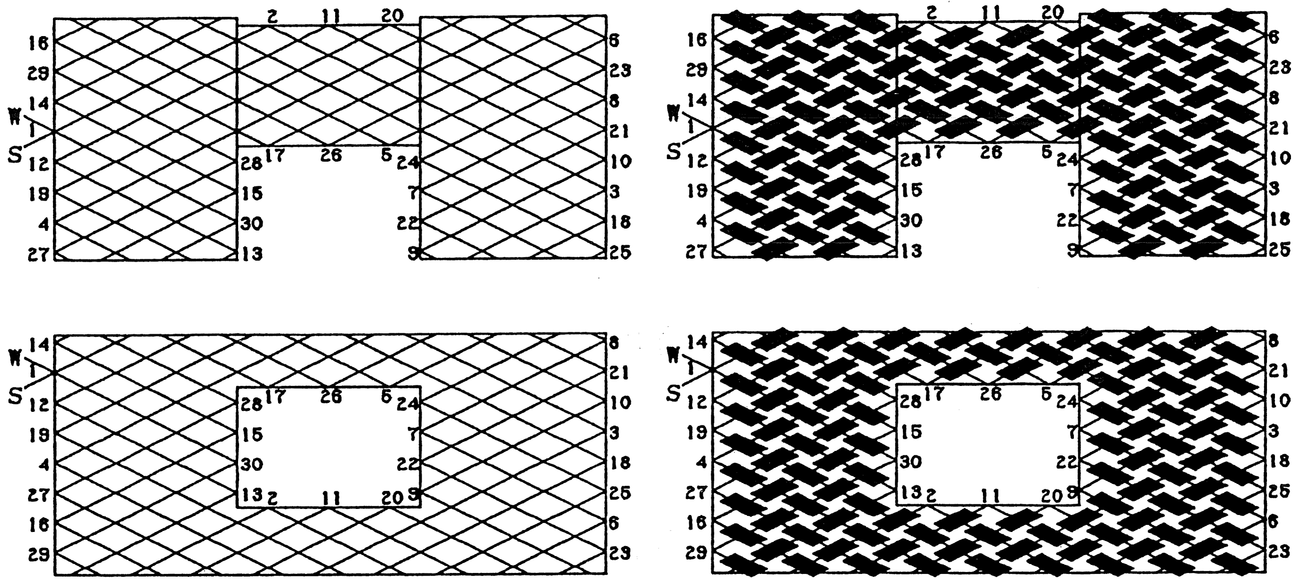
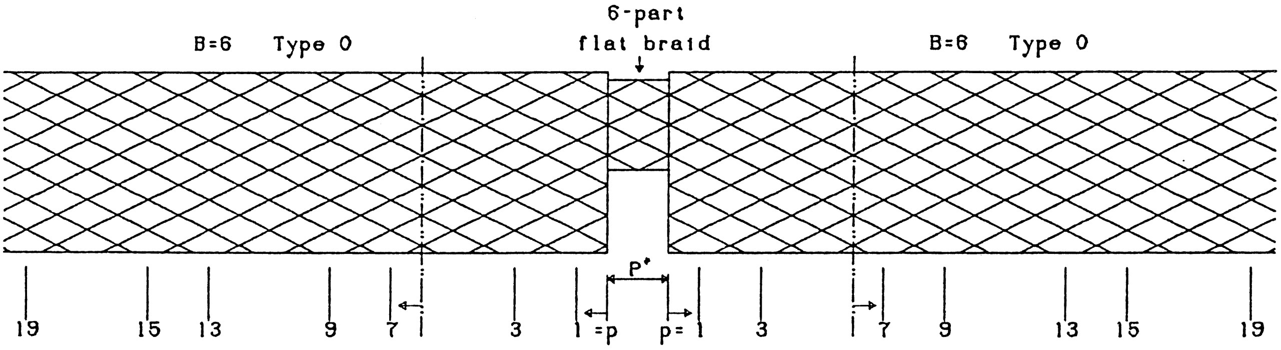


Fig. 2 — The knot in Fig. 1 as a Regular $C_1F^*C_1$ Knot and as a Regular CWH* Knot.

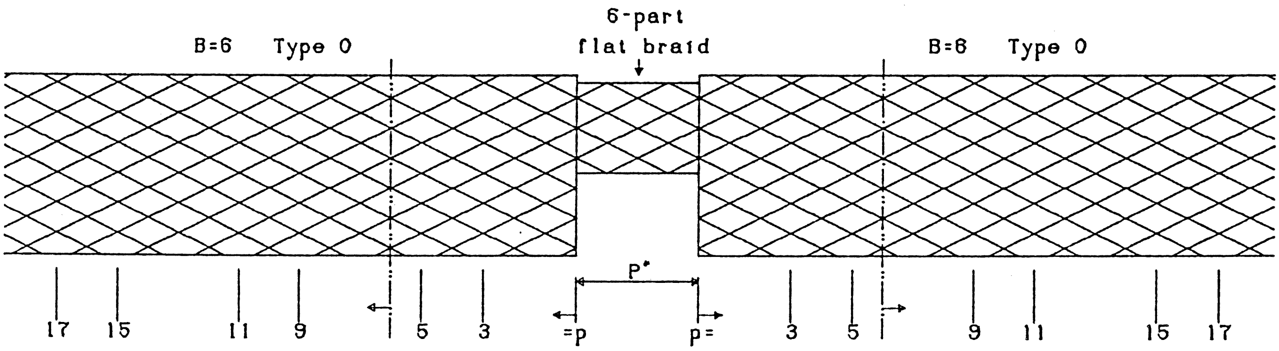
We mentioned in the *Introduction* that the relevant data associated with the 1-string Regular $C_1F^*C_1$ Braids (the Regular $C_1F^*C_1$ Knots) are for the more commonly encountered flat braid sizes presented in general string-run diagrams which reflect their typical application. Hence in order to familiarize the reader with the general layout, we shall first present a few Examples.

Example 1 :

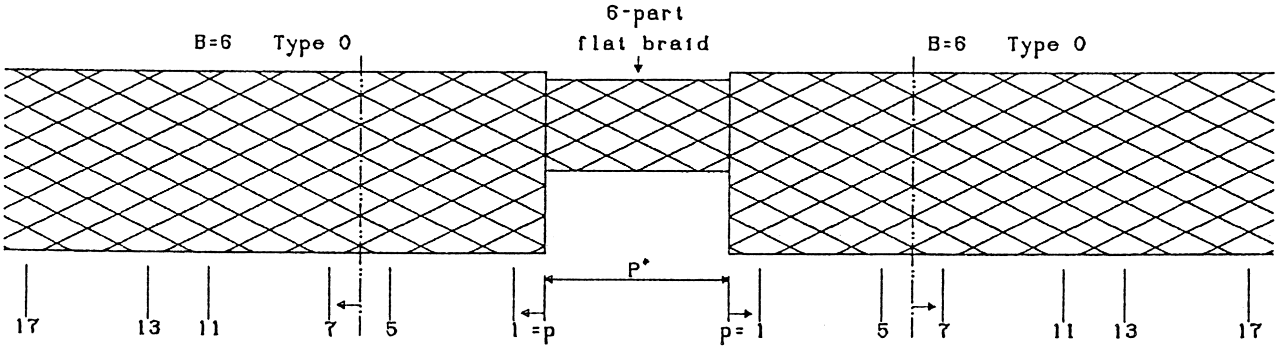
The three general string-run diagrams depicted below in Fig. 3 are associated with Regular $C_1F^*C_1$ Knots for which $B = 6$; $p_F = 6$ and $x = 3$.



1-string solutions for $P^*=6n+2$ with $n=0,1,2,3,\ldots$

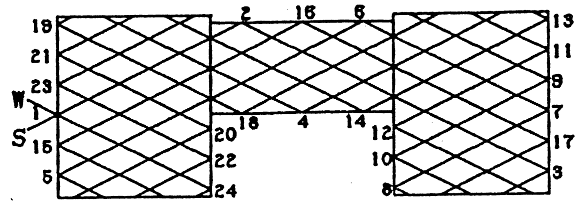


1-string solutions for $P^*=6n+4$ with $n=0,1,2,3,\ldots$



1-string solutions for $P^*=6n+6$ with $n=0,1,2,3,\ldots$

Fig. 3 — The general string-run diagrams for $C_1F^*C_1$ Knots with $B = 6$; $p_F = 6$ and $x = 3$.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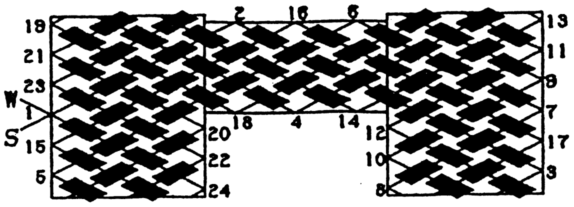
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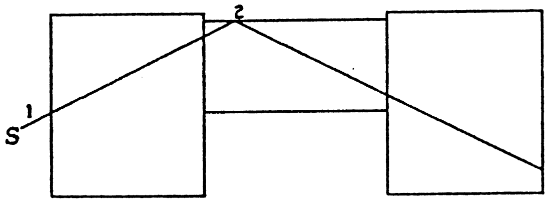
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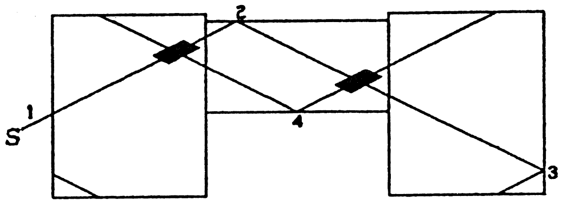
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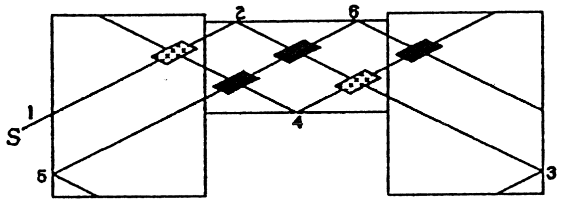
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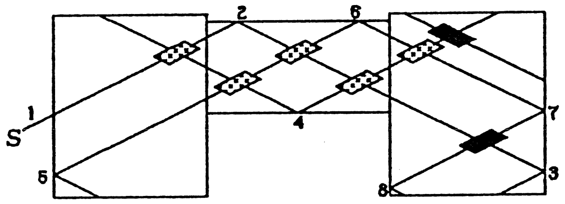
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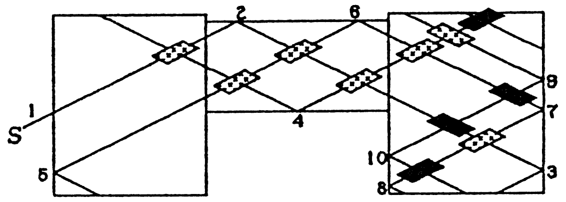
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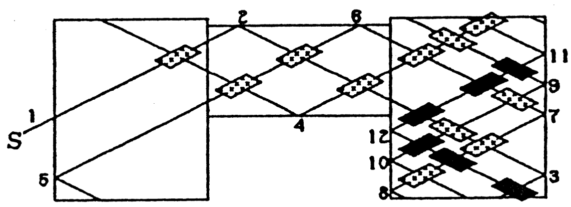
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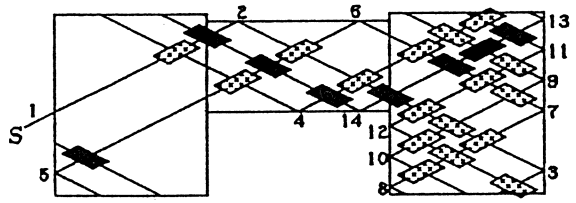
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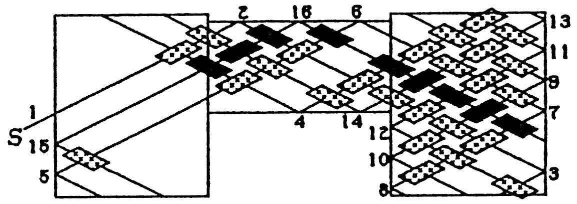
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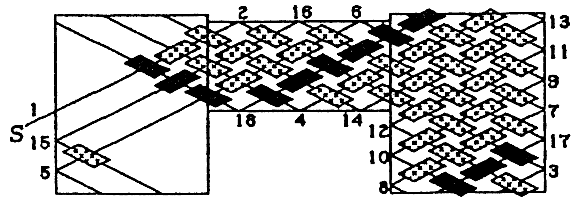
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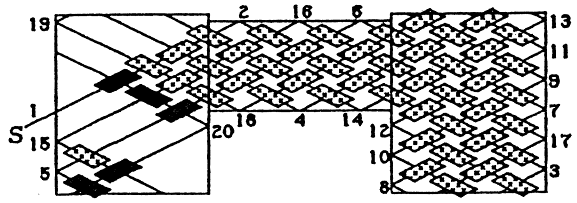
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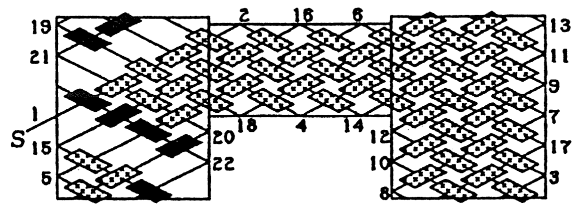
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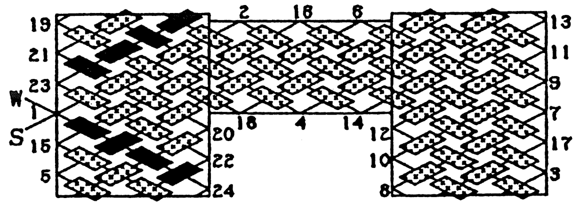
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The uppermost diagram in Fig. 3 is for $P^* = 6n+2$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 2, 8, 14, \cdots$.

The central diagram in Fig. 3 is for $P^* = 6n+4$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 4, 10, 16, \cdots$.

The lowermost diagram in Fig. 3 is for $P^* = 6n+6$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 6, 12, 18, \cdots$.

The valid p-values (single-string solutions) are indicated in each diagram. The sequence of valid p-values repeats after each $p = B = 6$; this is indicated by each of the two vertical lines with the horizontal arrow.

Say we want to braid one of these $C_1F^*C_1$ knots for which $P^* = 6$. Hence we need to consult the lowermost general string-run diagram to see which p-values can be used in order to obtain a single-string solution. Say we select $p = 5$; then the actual string-run diagram of the $C_1F^*C_1$ we want to braid is as depicted by the uppermost left-hand diagram on pg. 5.

Say we want to give this knot a Casa-coding; then the grid-diagram for the choosen string-run and coding is depicted by the uppermost right-hand diagram on pg. 5.

The braiding sequence for this knot depends of course on the choosen starting-point, and is for our choosen starting-point depicted by the further diagrams on pg. 5.

These knots are easy to braid on a strip of cardboard from which they are slid off after completion.

Example 2 :

The three general string-run diagrams depicted in Fig. 4 are associated with Regular $C_1F^*C_1$ Knots for which $B = 7$; $p_F = 6$ and $x = 3$.

The uppermost diagram in Fig. 4 is for $P^* = 6n+2$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 2, 8, 14, \cdots$.

The central diagram in Fig. 4 is for $P^* = 6n+4$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 4, 10, 16, \cdots$.

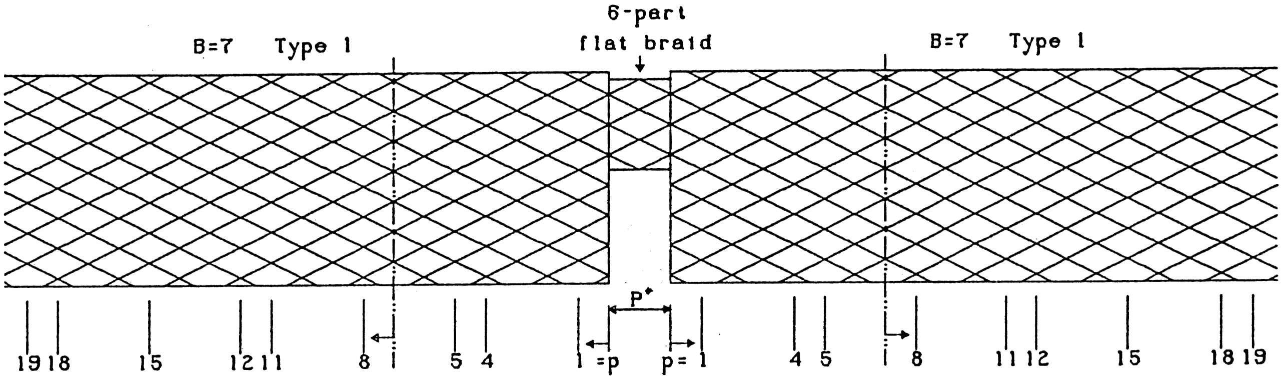
The lowermost diagram in Fig. 4 is for $P^* = 6n+6$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 6, 12, 18, \cdots$.

The valid p-values (single-string solutions) are indicated in each diagram. The sequence of valid p-values repeats after each $p = B = 7$; this is again indicated by each of the two vertical lines with the horizontal arrow.

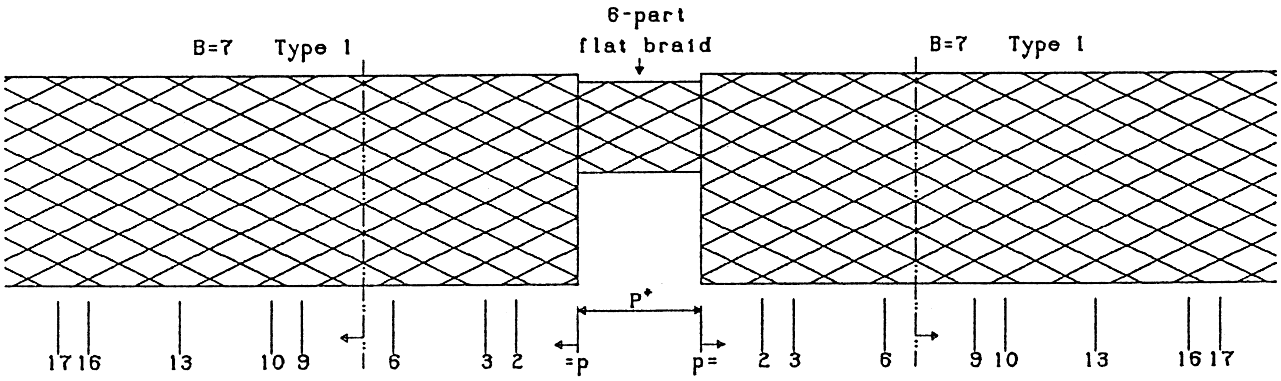
Say we want to braid one of these $C_1F^*C_1$ knots for which $P^* = 6$. Hence we need to consult the lowermost general string-run diagram to see which p-values can be used in order to obtain a single-string solution. Say we select $p = 5$; then the actual string-run diagram of the $C_1F^*C_1$ we want to braid is as depicted by the uppermost left-hand diagram on pg. 8.

Say we want to give this knot a Casa-coding; then the grid-diagram for the choosen string-run and coding is depicted by the uppermost right-hand diagram on pg. 8.

The braiding sequence for this knot depends of course on the choosen starting-point, and is for our choosen starting-point depicted by the further diagrams on pg. 8.



1-string solutions for $P^*=6n+2$ with n=0.1.2.3....



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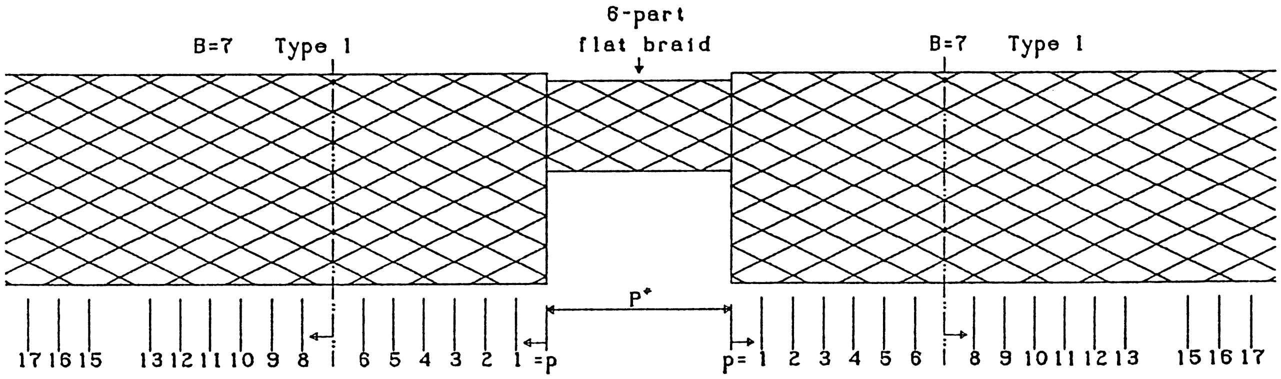
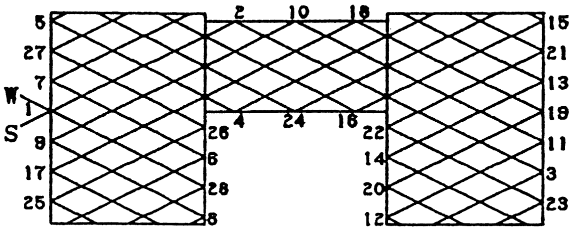

6-part
flat braid
B=7 Type 1
B=7 Type 1
P*
17 16 15
13 12 11 10 9 8 1 6 5 4 3 2 1 =p
p= 1 2 3 4 5 6 1 8 9 10 11 12 13
15 16 17

1-string solutions for $P^*=6n+6$ with n=0.1.2.3....

Fig. 4 — The general string-run diagrams for $C_1F^*C_1$ Knots with $B=7$; $p_F=6$ and $x=3$.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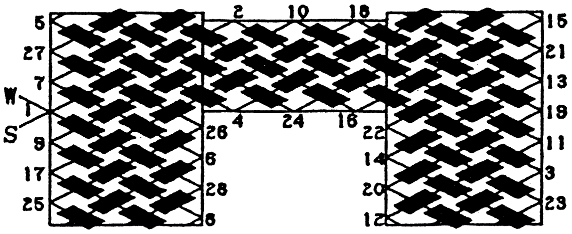
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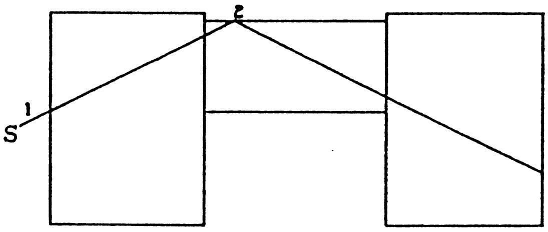
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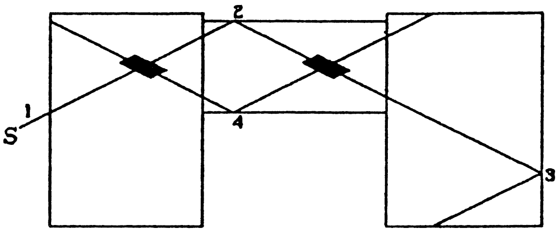
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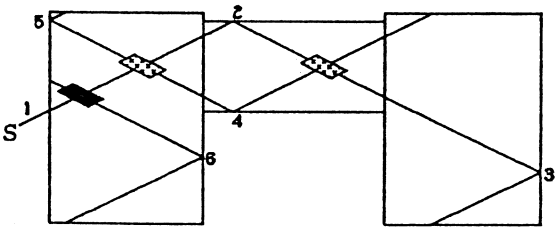
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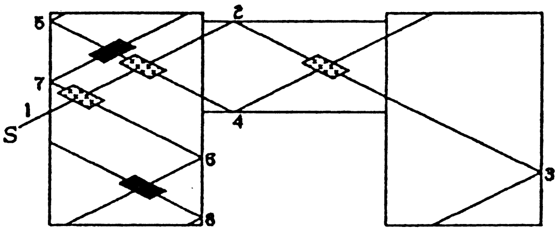
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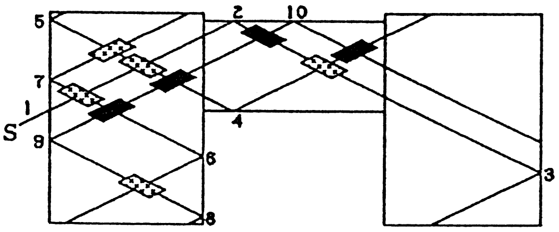
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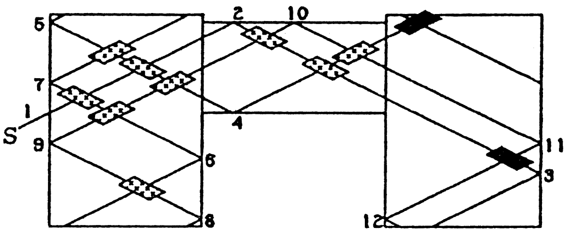
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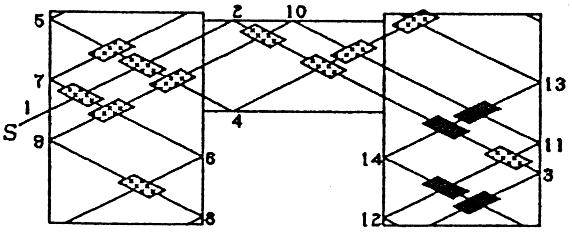
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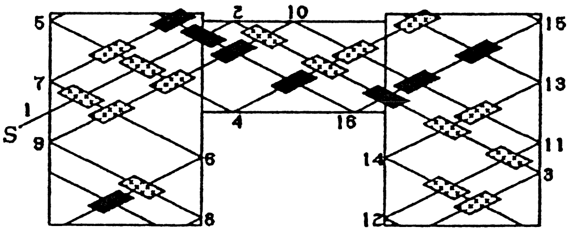
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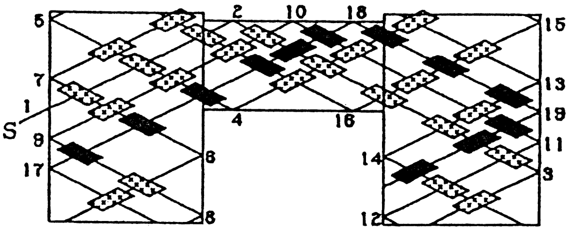
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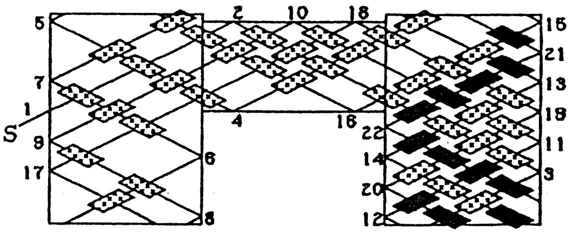
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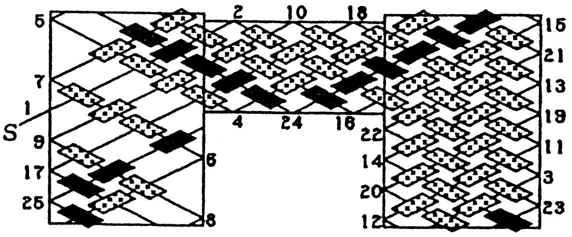
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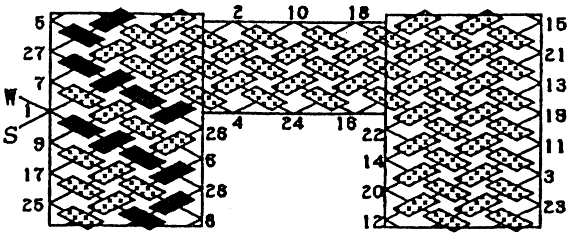
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Example 3 :

The four general string-run diagrams depicted in Fig. 5 are associated with Regular $C_1F^*C_1$ Knots for which $B = 8$; $p_F = 8$ and $x = 4$.

The uppermost diagram in Fig. 5 is for $P^* = 8n+2$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 2, 10, 18, \cdots$.

The second diagram in Fig. 5 is for $P^* = 8n+4$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 4, 12, 20, \cdots$. Note that there are no valid p-values for single-string knots.

The third diagram in Fig. 5 is for $P^* = 8n+6$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 6, 14, 22, \cdots$.

The lowermost diagram in Fig. 5 is for $P^* = 8n+8$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 8, 16, 24, \cdots$. Note that there are no valid p-values for single-string knots.

The valid p-values (single-string solutions) are indicated in each diagram. The sequence of valid p-values repeats after each $p = B = 8$; this is again indicated by each of the two vertical lines with the horizontal arrow.

Say we want to braid one of these $C_1F^*C_1$ knots for which $P^* = 6$. Hence we need to consult the third general string-run diagram from the top to see which p-values can be used in order to obtain a single-string solution. Say we select $p = 6$; then the actual string-run diagram of the $C_1F^*C_1$ we want to braid is as depicted by the uppermost left-hand diagram on pg. 11.

Say we want to give this knot a Casa-coding; then the grid-diagram for the choosen string-run and coding is depicted by the uppermost right-hand diagram on pg. 11.

The braiding sequence for this knot depends of course again on the choosen starting-point, and is for our choosen starting-point depicted by the further diagrams on pg. 11.

Example 4 :

The six general string-run diagrams depicted in Fig. 6 are associated with Regular $C_1F^*C_1$ Knots for which $B = 8$; $p_F = 12$ and $x = 4$.

The uppermost diagram in Fig. 6 is for $P^* = 12n+2$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 2, 14, 26, \cdots$.

The second diagram in Fig. 6 is for $P^* = 12n+4$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 4, 16, 28, \cdots$. Note that there are no valid p-values for single-string knots.

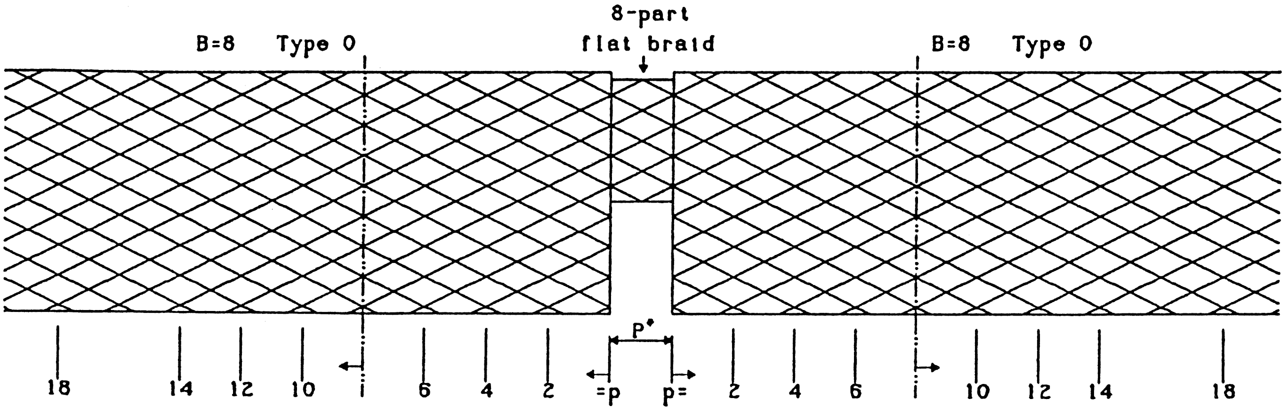
The lowermost diagram in Fig. 6 is for $P^* = 12n+6$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 6, 18, 30, \cdots$.

The uppermost diagram in Fig. 6 cont. is for $P^* = 12n+8$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 8, 20, 32, \cdots$. Note that there are no valid p-values for single-string knots.

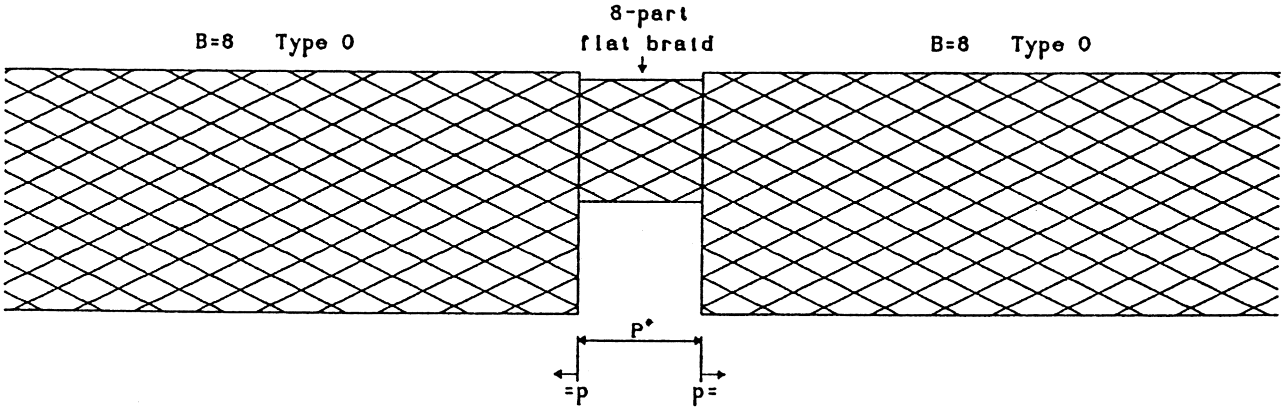
The second diagram in Fig. 6 cont. is for $P^* = 12n+10$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 10, 22, 34, \cdots$.

The lowermost diagram in Fig. 6 cont. is for $P^* = 12n+12$, where $n = 0, 1, 2, 3, \cdots$. Hence for $P^* = 12, 24, 36, \cdots$. Note that there are no valid p-values for single-string knots.

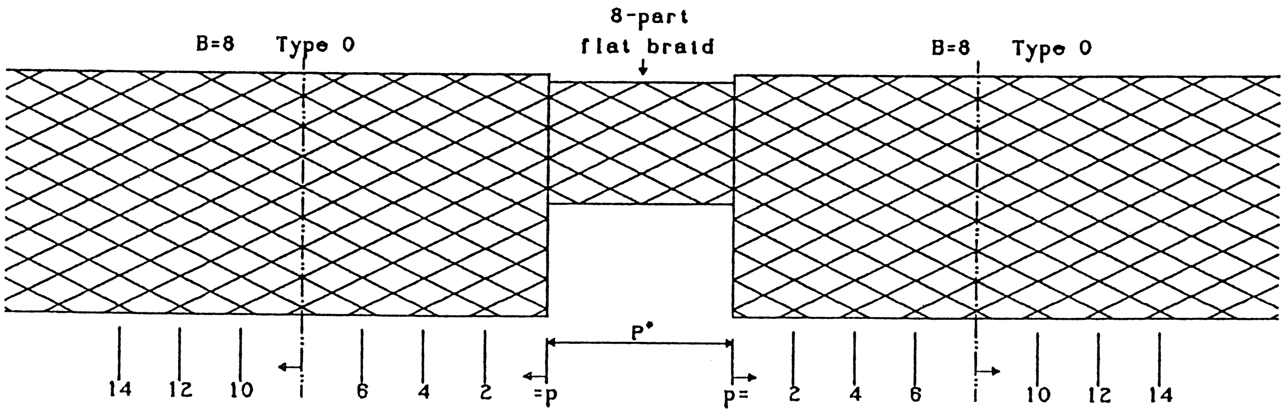
The valid p-values (single-string solutions) are indicated in each diagram. The sequence of valid p-values repeats after each $p = B = 8$; this is again indicated by each of the two vertical lines with the horizontal arrow.



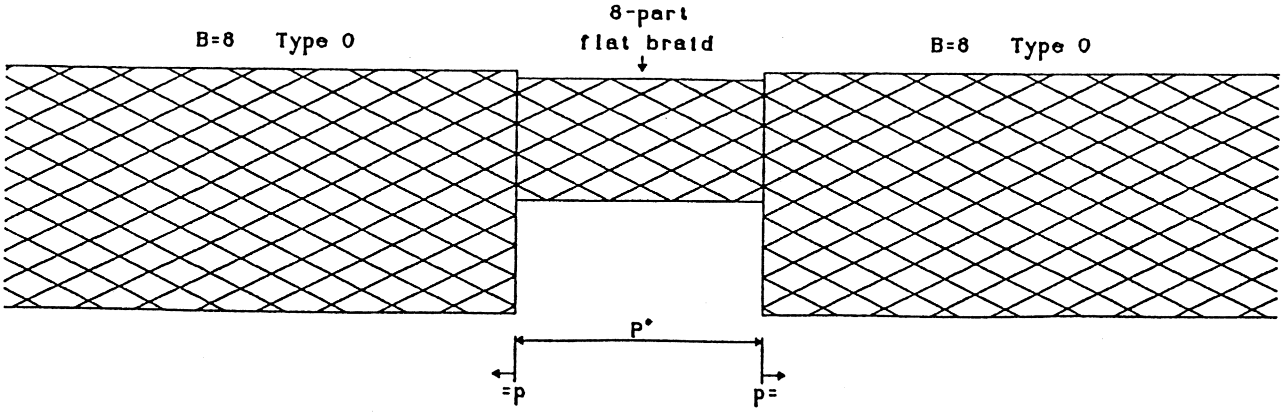
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....

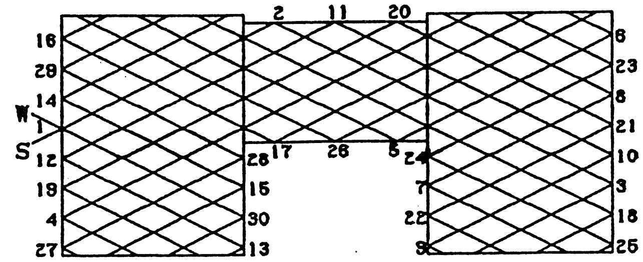


1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....

Fig. 5 — The general string-run diagrams for $C_1F^*C_1$ Knots with $B=8$; $p_F=8$ and $x=4$.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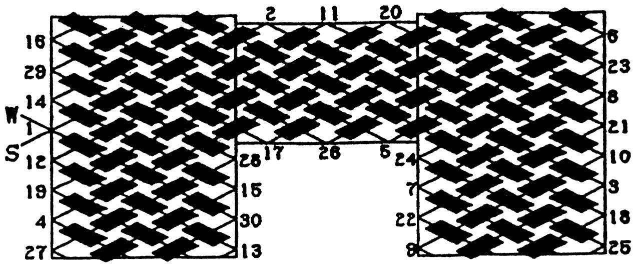
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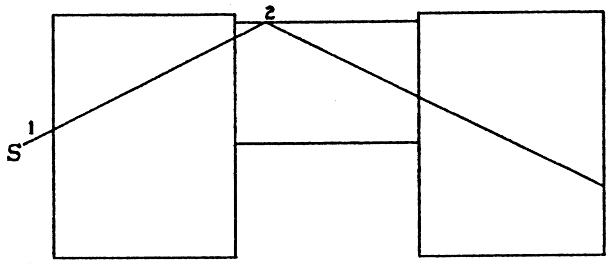
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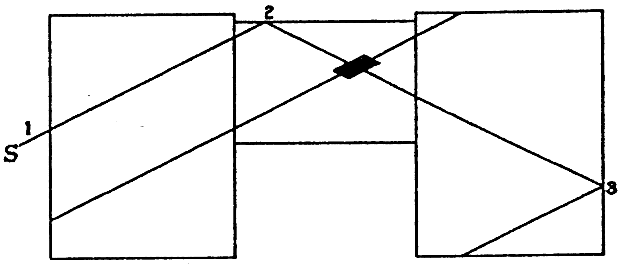
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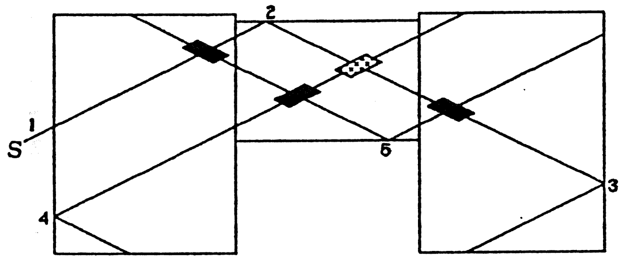
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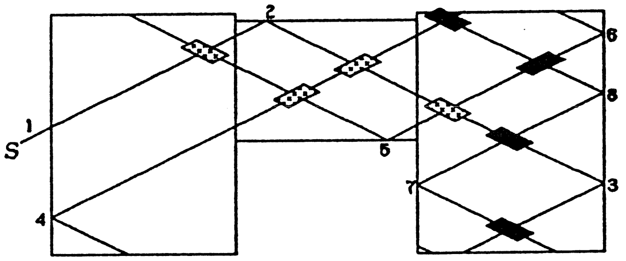
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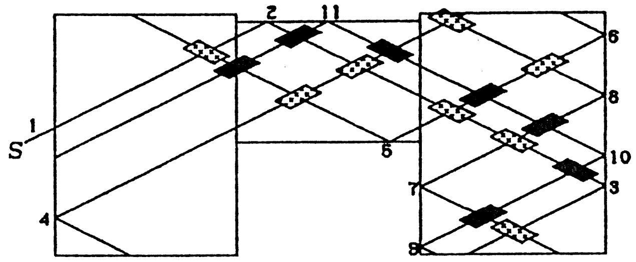
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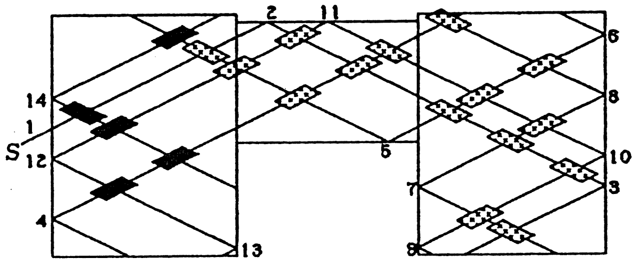
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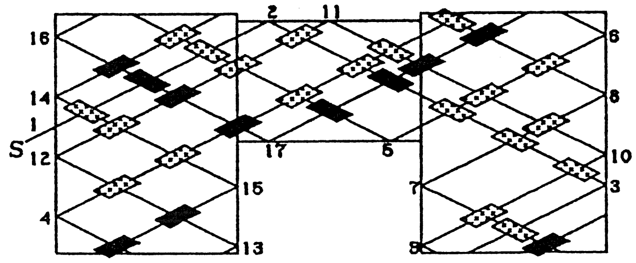
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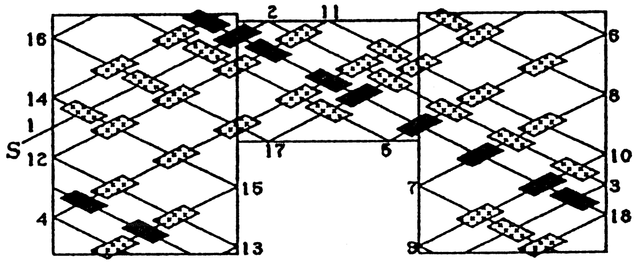
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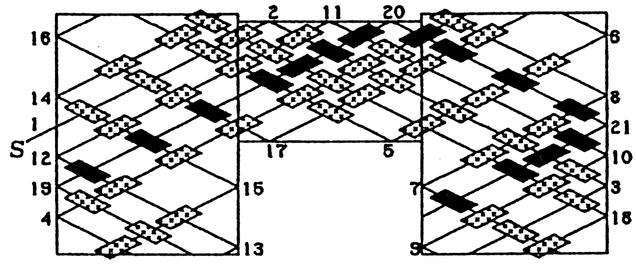
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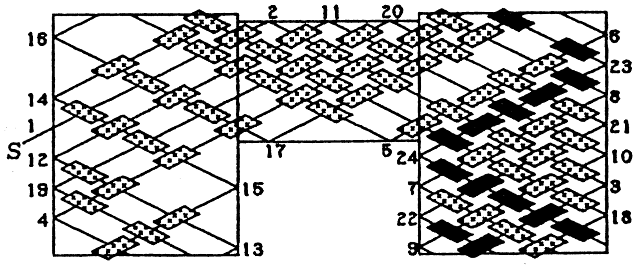
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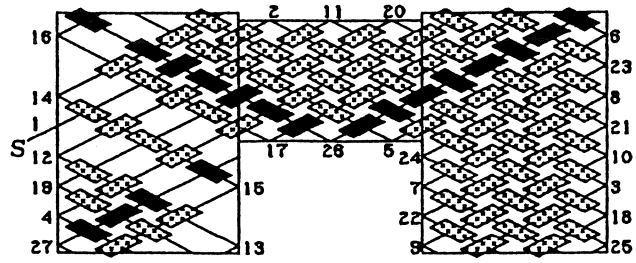
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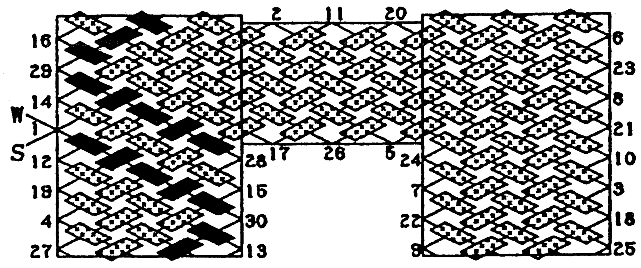
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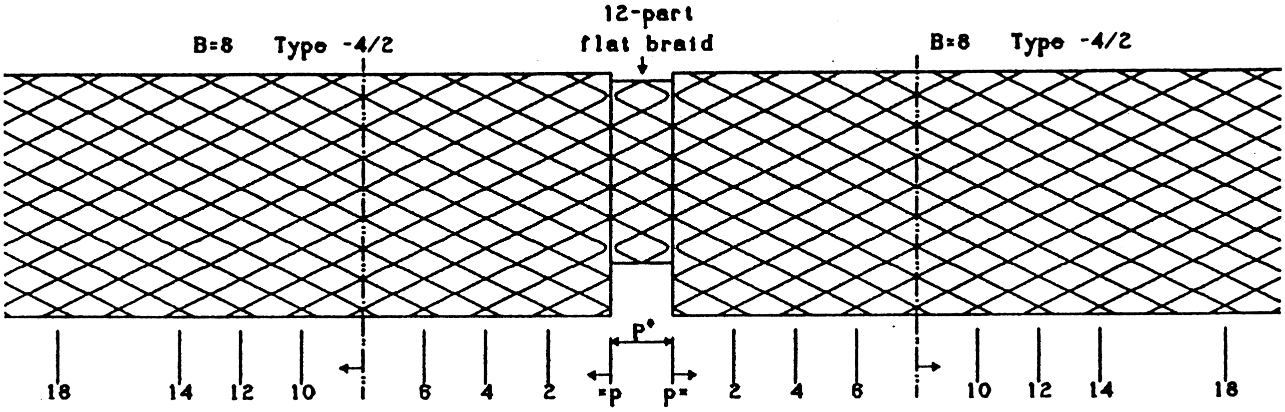
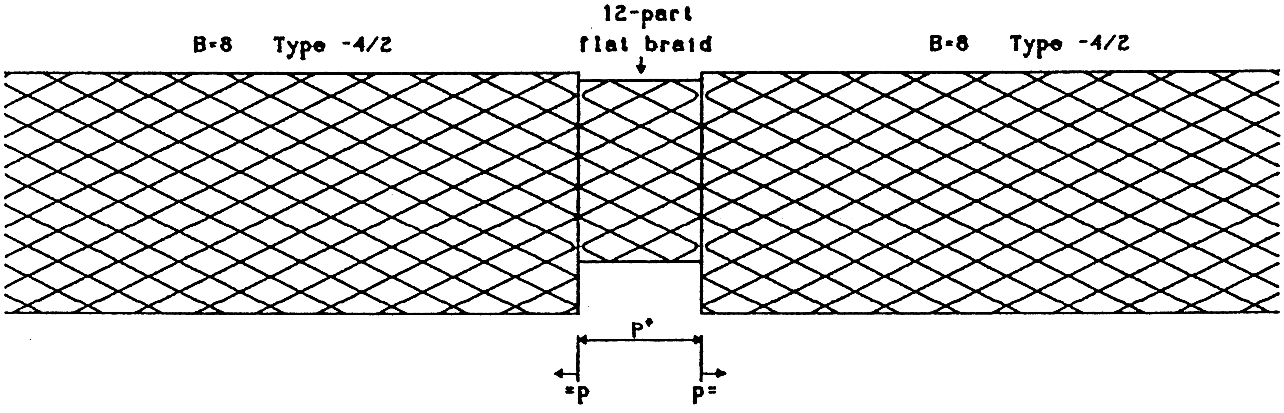
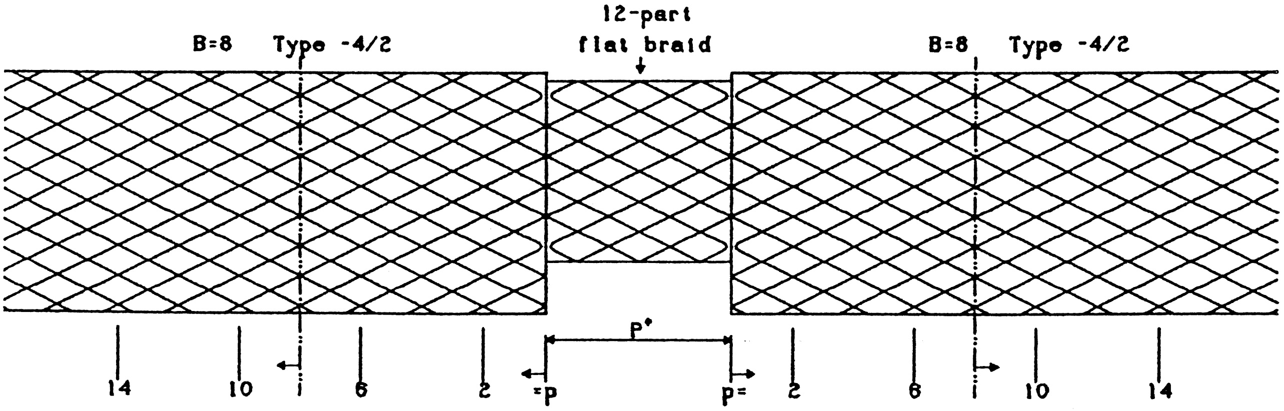


1-string solutions for $P^*=12n+2$ with $n=0,1,2,3,\ldots$

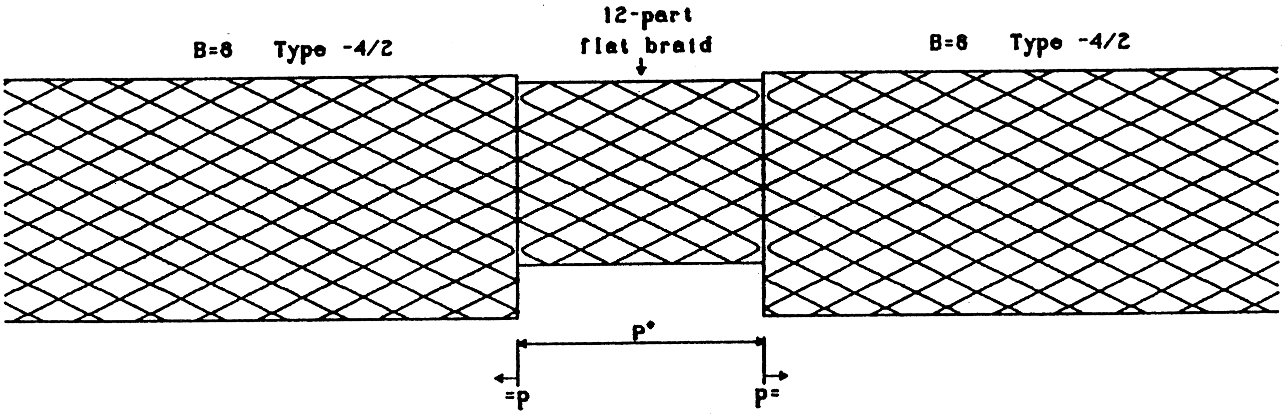


NO 1-string solutions for $P^*=12n+4$ with $n=0,1,2,3,\ldots$

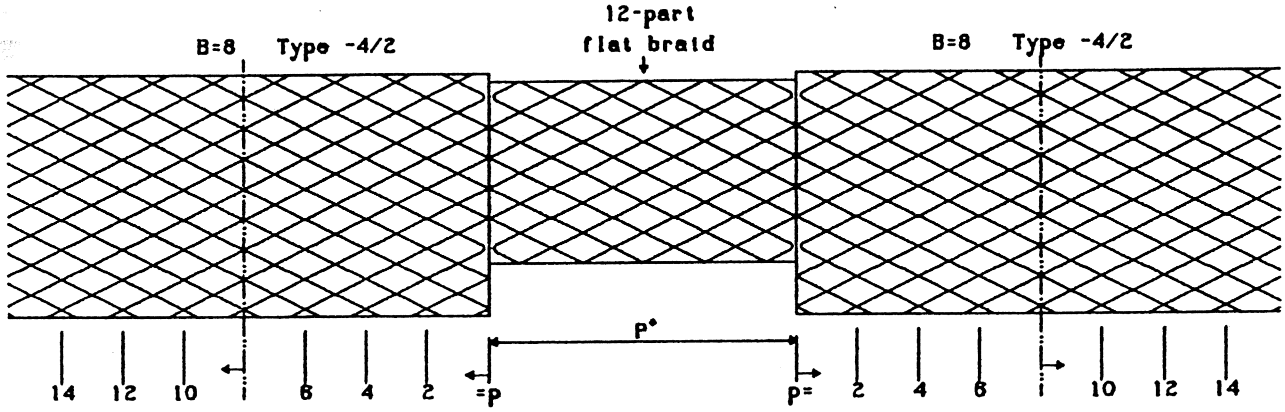


1-string solutions for $P^*=12n+6$ with $n=0,1,2,3,\ldots$

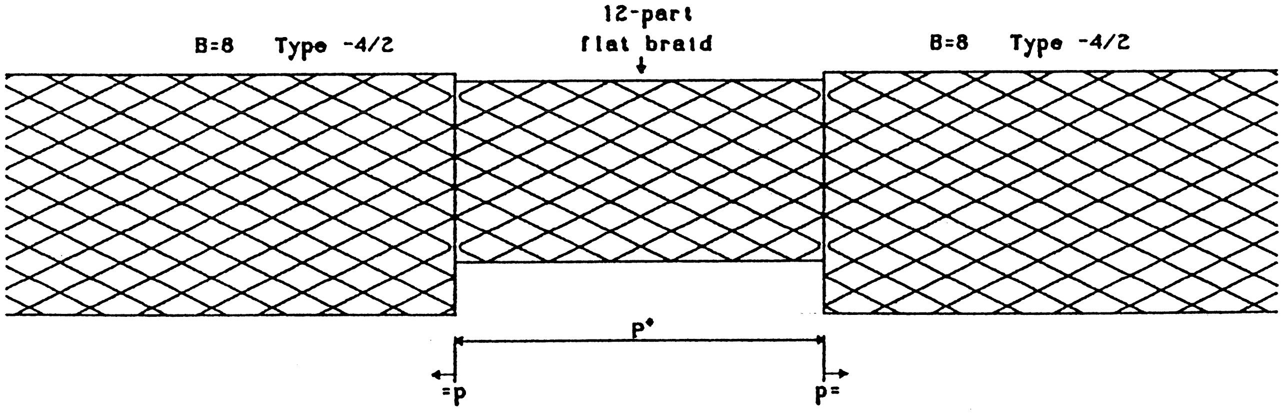
Fig. 6 — The general string-run diagrams for $C_1F^*C_1$ Knots with $B = 8$; $p_F = 12$ and $x = 4$.



NO 1-string solutions for P*=12n+8 with n=0.1.2.3....

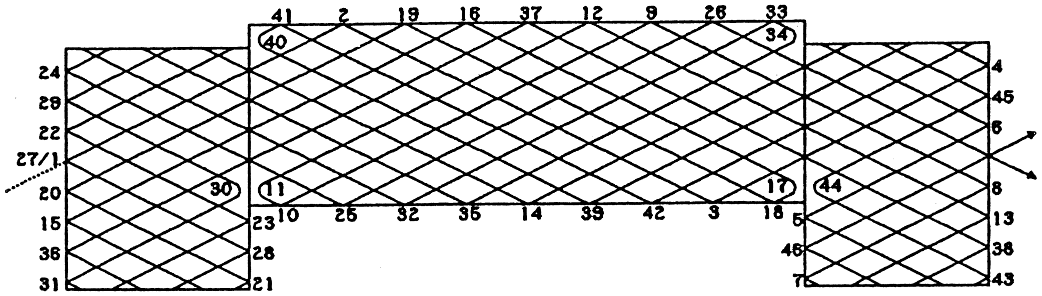


1-string solutions for P*=12n+10 with n=0.1.2.3....



NO 1-string solutions for P*=12n+12 with n=0.1.2.3....

Fig. 6 cont. — The general string-run diagrams for $C_1F^*C_1$ Knots with $B = 8$; $p_F = 12$ and $x = 4$.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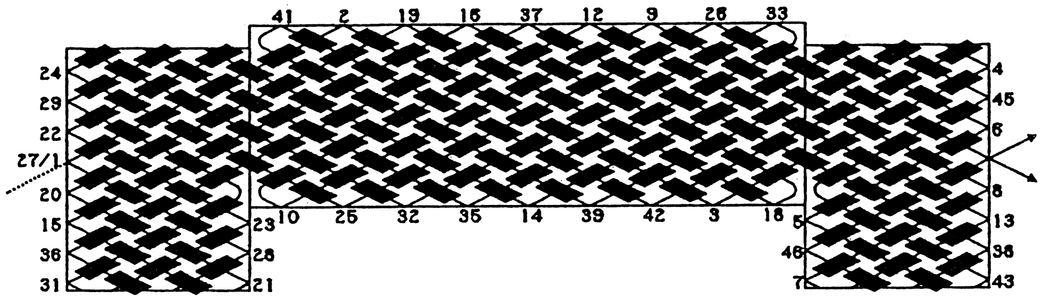
23 10 25 32 35 14 39 42 3 18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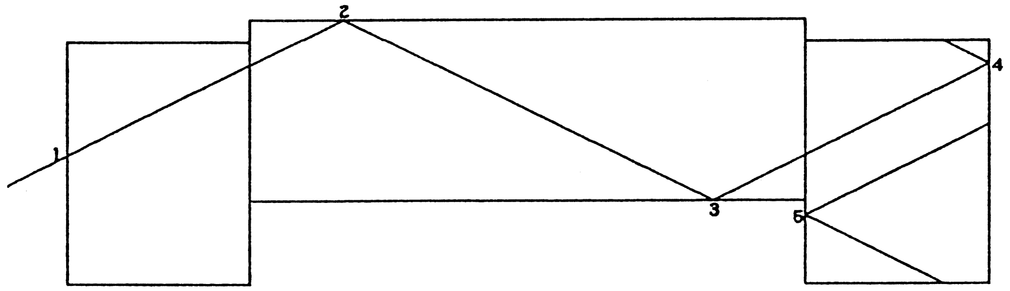

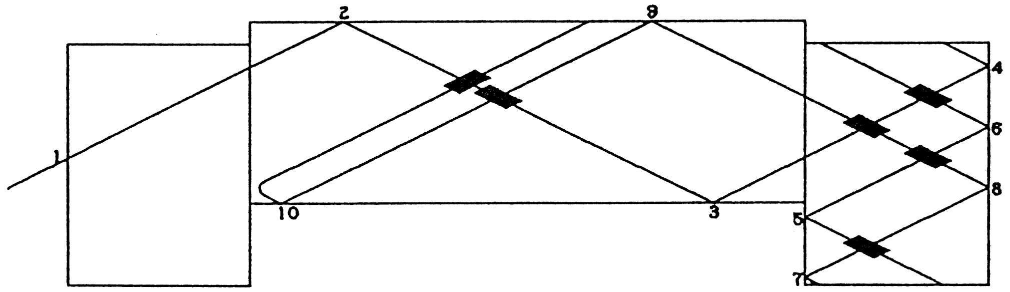

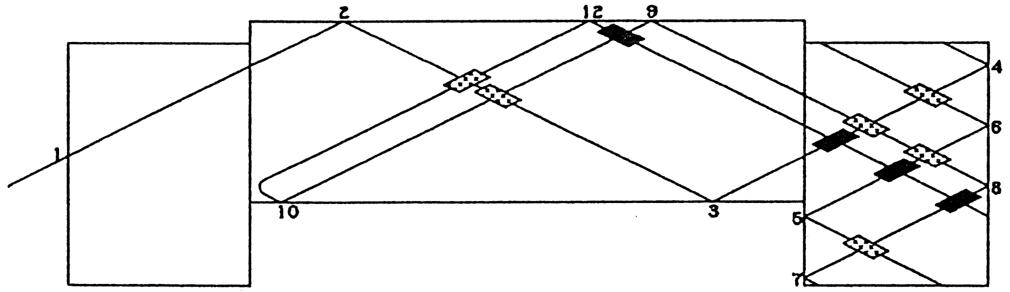
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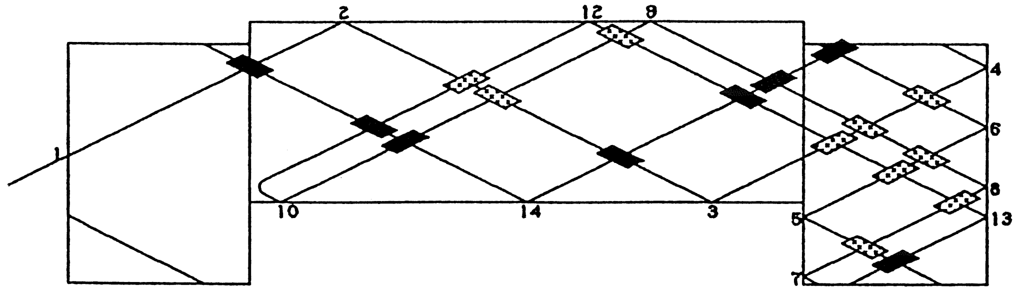
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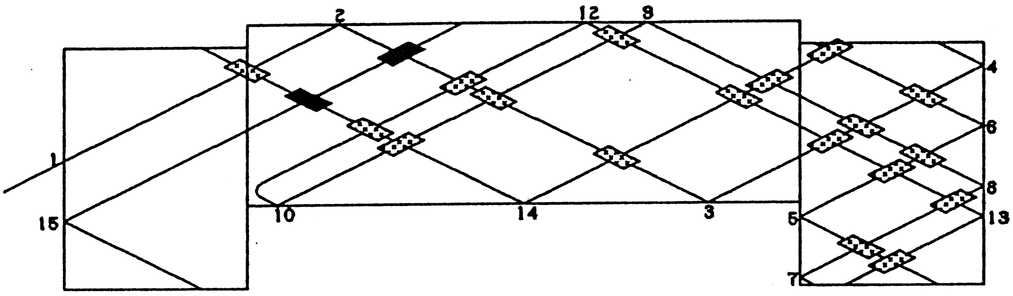

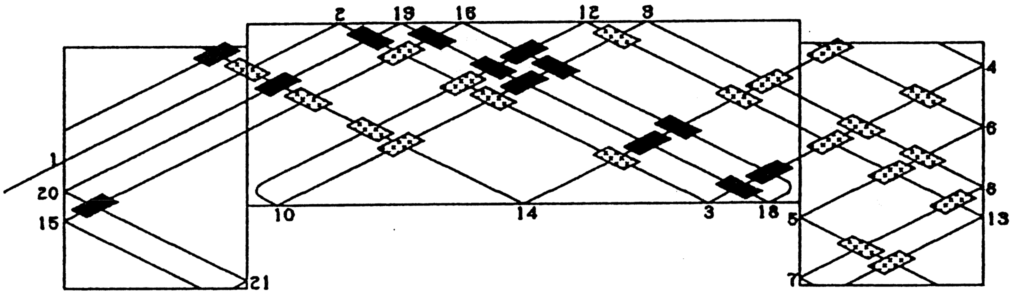

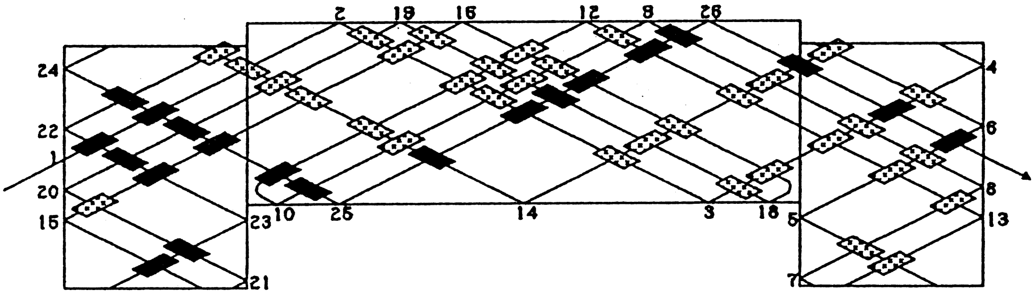

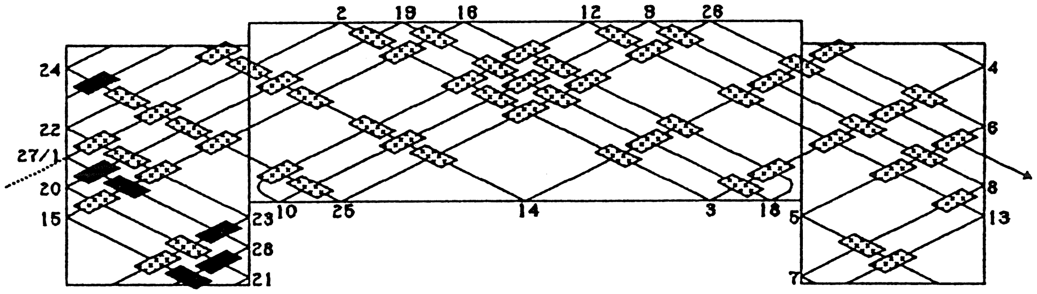
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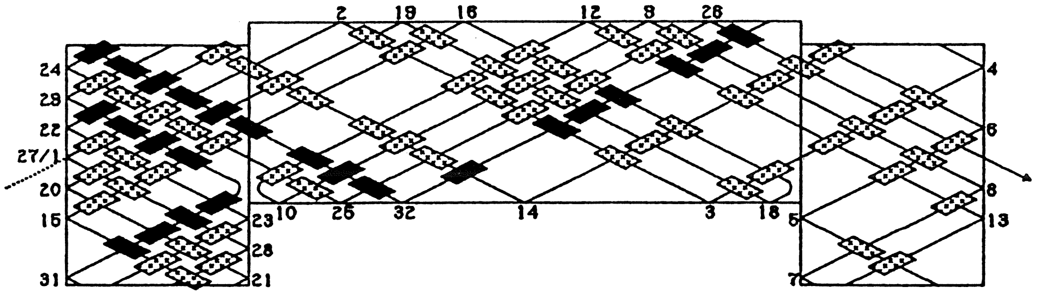
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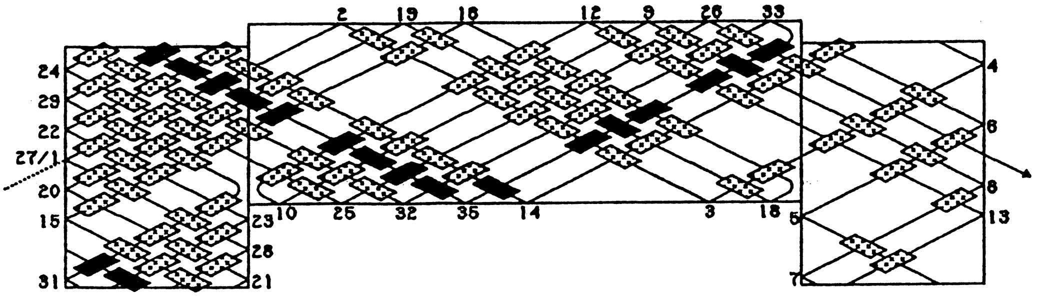
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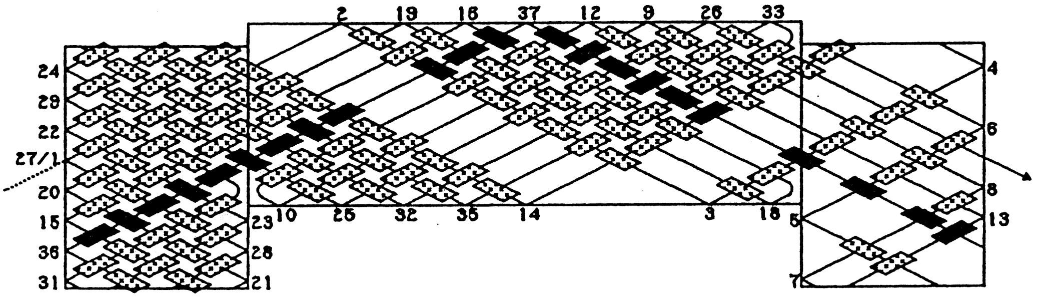
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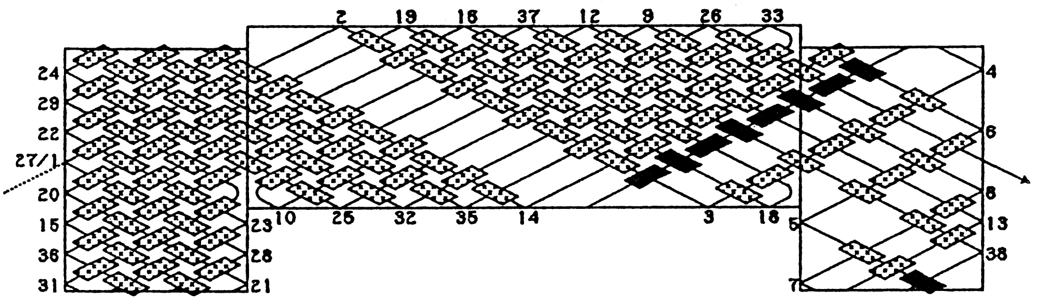
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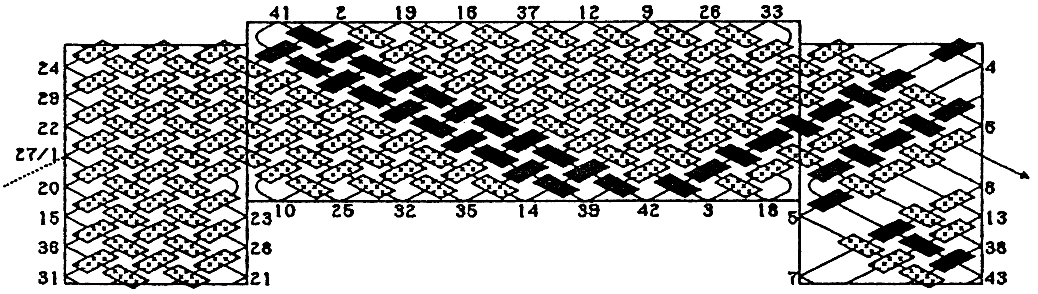
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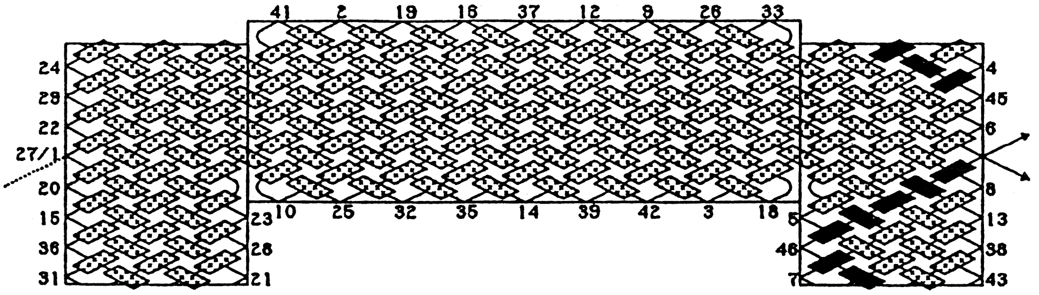

27/1

Say we want to braid one of these $C_1F^*C_1$ knots for which $P^* = 18$. Hence we need to consult the lowermost general string-run diagram in Fig. 6, pg. 12 to see which p-values can be used in order to obtain a single-string solution. Say we select $p = 6$; then the actual string-run diagram of the $C_1F^*C_1$ we want to braid is as depicted by the uppermost diagram on pg. 14.

Say we want to give this knot a Casa-coding; then the grid-diagram for the choosen string-run and coding is depicted by the second diagram from the top on pg. 14.

The braiding sequence for this knot is for our choosen starting-point depicted by the further diagrams on pp. 14, 15 and 16.

The Complemental Law.

One of the most fundamental Laws in braiding is **the Complemental Law**, and, as to be expected, it plays a very important role in Regular CFC Braids. For the Regular CFC Braids in general, it states the following: Let the integrated components be labelled C_1, F, and C_2. Let C_1 have p_1-parts and B_1-bights, let F have p_F-parts and $P^*/2$-bights, and let C_2 have p_2-parts and B_2-bights. Furthermore, let this Regular C_1FC_2 Braid require a strings. Then the Regular $C'_1F'C'_2$ Braid, with the identical transition configurations, in which C'_1 has $(B_1 - p_1)$-parts and B_1-bights, F' has p_F-parts and $(p_F - P^*)/2$-bights, and C'_2 has $(B_2 - p_2)$-parts and B_2-bights, requires also a strings.

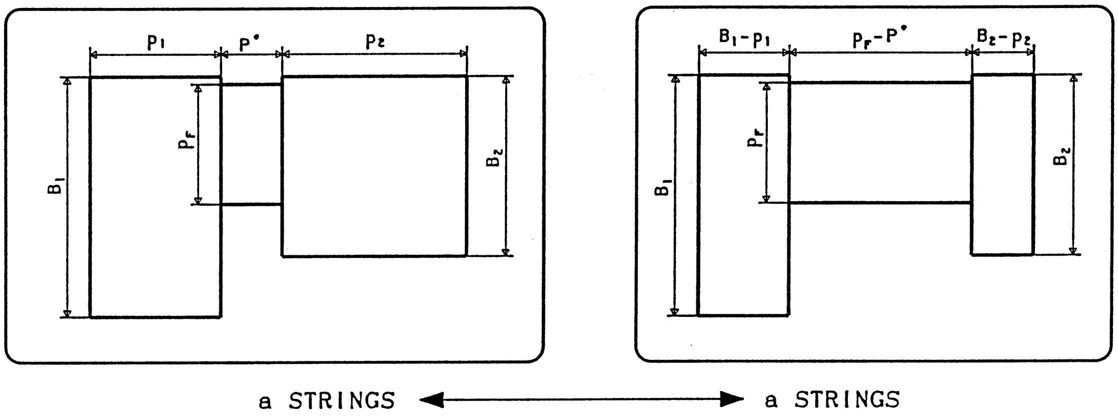


Fig. 7 — The Complemental Law for Regular CFC Braids.

Example 5 :

The Regular C_1FC_2 Braid of which the string-run is depicted by the left-hand diagram in Fig. 8 requires 1 string. In this braid C_1 has $p_1 = 4$-parts and $B_1 = 7$-bights, F has $p_F = 8$-parts and $P^*/2 = 3$-bights, and C_2 has $p_2 = 10$-parts and $B_2 = 8$-bights.

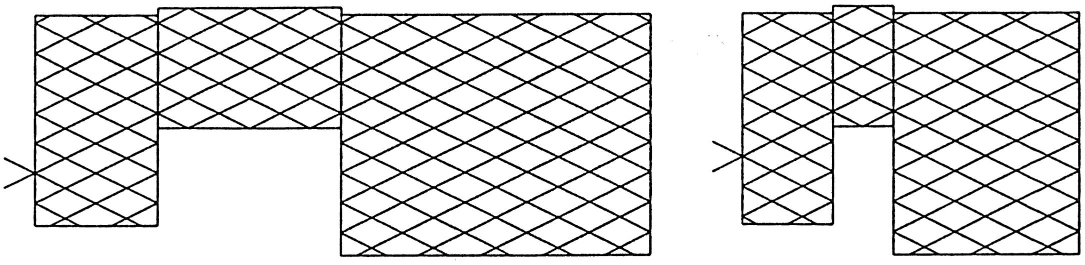


Fig. 8 — The string-run diagrams of the Regular C_1FC_2 Braid and its complementary Regular $C'_1F'C'_2$ Braid of Example 5.

Its complementary Regular $C_1'F'C_2'$ Braid in which C_1' has $(B_1 - p_1) = 7 - 4 = 3$-parts and $B_1 = 7$-bights, F′ has $p_F = 8$-parts and $(p_F - P^*)/2 = (8-6)/2 = 1$-bight, and C_2' has $(B_2 - p_2) = 8 - 10 = -2 = -2 + B_2 = -2 + 8 = 6$-parts and $B_2 = 8$-bights, requires also 1 string (see right-hand diagram in Fig. 8).

Example 6 :

The Regular C_1FC_2 Braid of which the string-run is depicted by the left-hand diagram in Fig. 9 requires 3 strings. In this braid C_1 has $p_1 = 7$-parts and $B_1 = 12$-bights, F has $p_F = 12$-parts and $P^*/2 = 2$-bights, and C_2 has $p_2 = 9$-parts and $B_2 = 13$-bights.

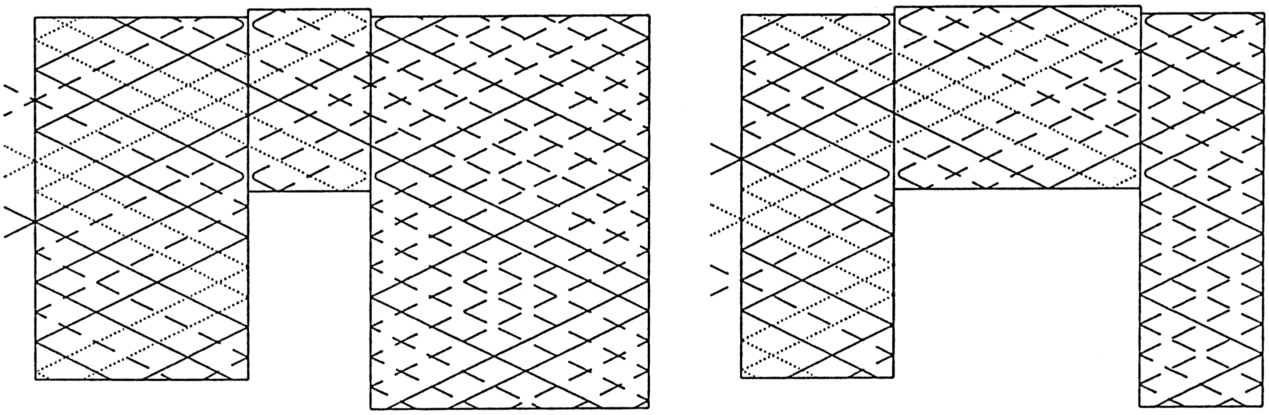


Fig. 9 — The string-run diagrams of the Regular C_1FC_2 Braid and its complementary Regular $C_1'F'C_2'$ Braid of Example 6.

Its complementary Regular $C_1'F'C_2'$ Braid in which C_1' has $(B_1 - p_1) = 12 - 7 = 5$-parts and $B_1 = 12$-bights, F′ has $p_F = 12$-parts and $(p_F - P^*)/2 = (12 - 4)/2 = 4$-bights, and C_2' has $(B_2 - p_2) = 13 - 9 = 4$-parts and $B_2 = 13$-bights, requires also 3 strings (see right-hand diagram in Fig. 9).

Example 7 :

The Regular C_1FC_2 Braid of which the string-run is depicted by the left-hand diagram in Fig. 10 requires 2 strings.

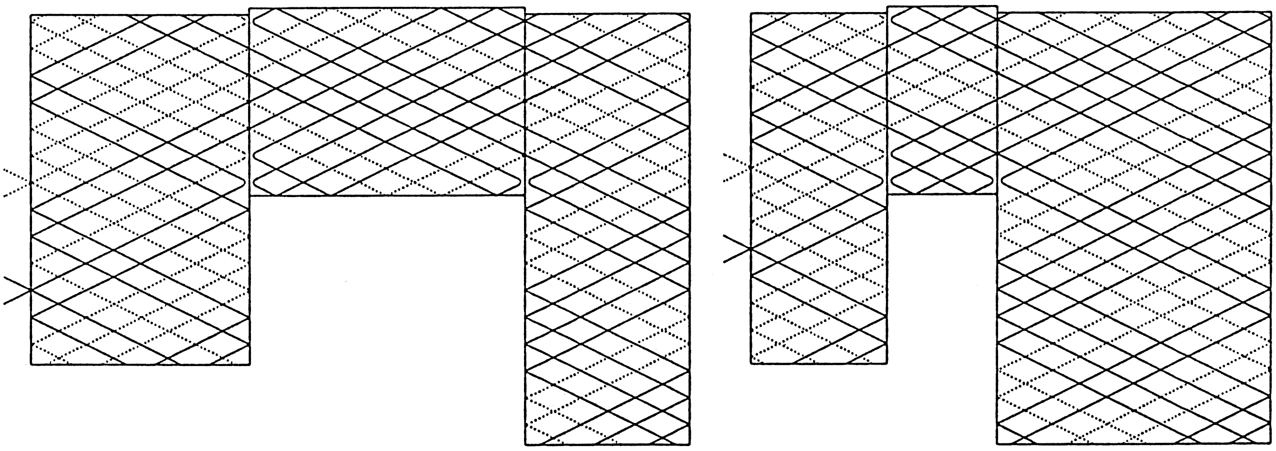


Fig. 10 — The string-run diagrams of the Regular C_1FC_2 Braid and its complementary Regular $C_1'F'C_2'$ Braid of Example 7.

In this braid C_1 has $p_1 = 8$-parts and $B_1 = 13$-bights, F has $p_F = 14$-parts and $P^*/2 = 5$-bights, and C_2 has $p_2 = 6$-parts and $B_2 = 16$-bights.

Its complementary Regular $C'_1F'C'_2$ Braid in which C'_1 has $(B_1 - p_1) = 13 - 8 = 5$-parts and $B_1 = 13$-bights, F' has $p_F = 14$-parts and $(p_F - P^*)/2 = (14 - 10)/2 = 2$-bights, and C'_2 has $(B_2 - p_2) = 16 - 6 = 10$-parts and $B_2 = 16$-bights, requires also 2 strings (see right-hand diagram in Fig. 10).

When in the Regular C_1FC_2 Braid both the C_1 and the C_2 components have the same number of bights, while for the Regular Flat Braid component the difference between *half its number of parts* and *its number of transition-points* is *zero*, we can then also regard this braid as a CWH Braid. The Complemental Law is then somewhat simplified as shown in Fig. 11.

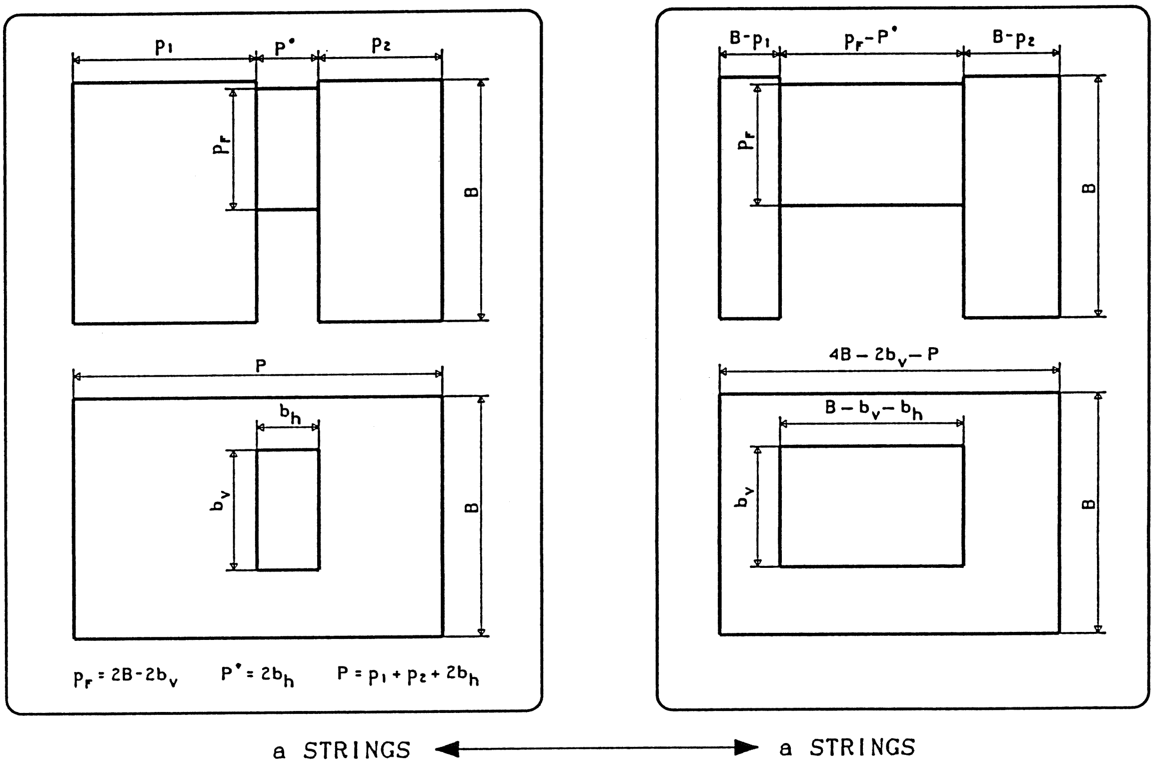


Fig. 11 — The Complemental Law for Regular CWH Braids.

The general string-run diagrams with the relevant data for the more commonly encountered 1-string Regular $C_1F^*C_1$ Braids (the Regular $C_1F^*C_1$ Knots) with $2x = p_F$ are presented on pp. 57–94.

The data on these pages can readily be obtained from the basic data on pp. 26–55 with the aid of the Complemental Law, Parts-equivalency[†], and Bights-equivalency[††], as shown in the following Example.

[†] Two Regular Cylindrical Braids which have the same number of bights are **parts-equivalent** when their number of respective parts differ by a multiple of their bights (example: 5-parts/7-bights and 12-parts/7-bights).

[††] Two Regular Cylindrical Braids which have the same number of parts are **bights-equivalent** when their number of respective bights differ by a multiple of their parts (example: 5-parts/7-bights and 5-parts/12-bights).

Example 8 :

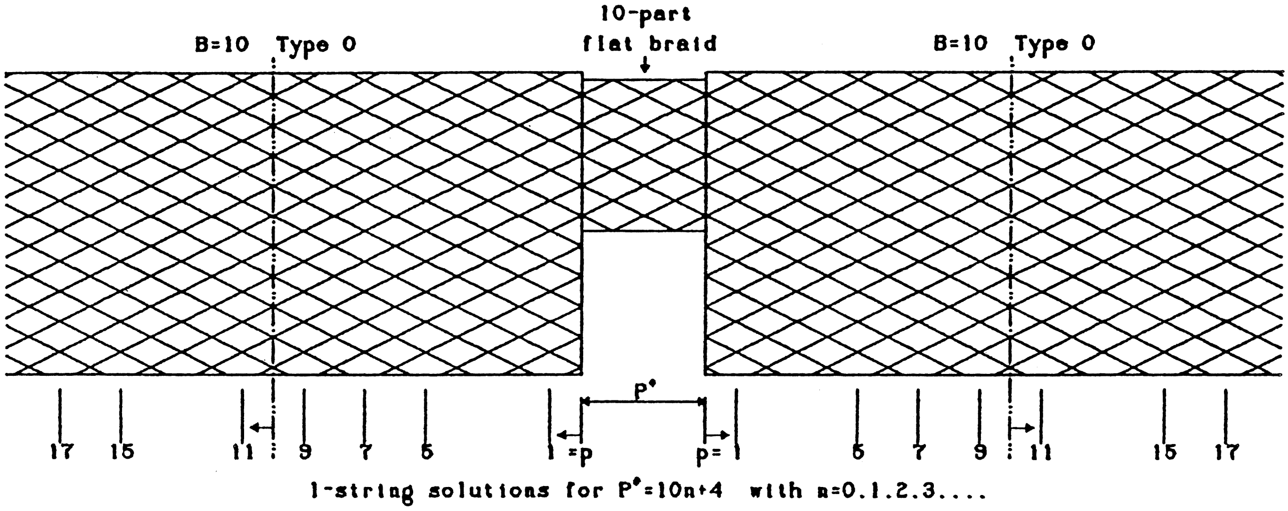


Fig. 12 — Valid p-values for 1-string solutions.

The in Fig. 12 indicated valid p-values for 1-string solutions are obtained as follows:

If $p = 1$ is a valid solution, then it is also a valid solution when $B = 10 - (5 \times 1) = 5$ (bights-equivalency). According to pg. 36, uppermost diagram, $p = 1$ is a valid solution for $B = 5$, and hence $p = 1$ is a valid solutions for $B = 10$.

If $p = 2$ is a valid solution, then it is also a valid solution when $B = 10 - (2 \times 2) = 6$ (bights-equivalency). According to pg. 36, central diagram, $p = 2$ is not a valid solution for $B = 6$, and hence $p = 2$ is not a valid solutions for $B = 10$.

If $p = 3$ is a valid solution, then it is also a valid solution when $B = 10 - (1 \times 3) = 7$ (bights-equivalency). According to pg. 36, lowermost diagram, $p = 3$ is not a valid solution for $B = 7$, and hence $p = 3$ is not a valid solutions for $B = 10$.

If $p = 4$ is a valid solution, then it is also a valid solution when $B = 10 - (1 \times 4) = 6$ (bights-equivalency). According to pg. 36, central diagram, $p = 4$ is not a valid solution for $B = 6$, and hence $p = 4$ is not a valid solutions for $B = 10$.

If $p = 5$ is a valid solution, then it is also a valid solution when $B = 10 - (1 \times 5) = 5$ (bights-equivalency). According to pg. 36, uppermost diagram, $p = 5$ is a valid solution for $B = 5$, and hence $p = 5$ is a valid solutions for $B = 10$.

If $p = 6$ is a valid solution, then $p = B - 6 = 10 - 6 = 4$ is a valid solution for $P^* = 10n + 6$ (complemental law), and hence $p = 4$ is then also a valid solution for $B = 10 - (1 \times 4) = 6$ (bights-equivalency) with $P^* = 10n + 6$. According to pg. 38, central diagram, $p = 4$ is not a valid solution for $B = 6$ with $P^* = 10n + 6$, and hence $p = 6$ is not a valid solutions for $B = 10$.

If $p = 7$ is a valid solution, then $p = B - 7 = 10 - 7 = 3$ is a valid solution for $P^* = 10n + 6$ (complemental law), and hence $p = 3$ is then also a valid solution for $B = 10 - (1 \times 3) = 7$ (bights-equivalency) with $P^* = 10n + 6$. According to pg. 38, lowermost diagram, $p = 3$ is a valid solution for $B = 7$ with $P^* = 10n + 6$, and hence $p = 7$ is a valid solutions for $B = 10$.

If $p = 8$ is a valid solution, then $p = B - 8 = 10 - 8 = 2$ is a valid solution for $P^* = 10n + 6$ (complemental law), and hence $p = 2$ is then also a valid solution for $B = 10 - (2 \times 2) = 6$ (bights-equivalency) with $P^* = 10n + 6$. According to pg. 38, central diagram, $p = 2$ is not a valid solution for $B = 6$ with $P^* = 10n + 6$, and hence $p = 8$ is not a valid solutions for $B = 10$.

If $p = 9$ is a valid solution, then $p = B - 9 = 10 - 9 = 1$ is a valid solution for

$P^* = 10n + 6$ (complemental law), and hence $p = 1$ is then also a valid solution for $B = 10 - (5 \times 1) = 5$ (bights-equivalency) with $P^* = 10n + 6$. According to pg. 38, uppermost diagram, $p = 1$ is a valid solution for $B = 5$ with $P^* = 10n+6$, and hence $p = 9$ is a valid solutions for $B = 10$.

Note that $p = B$ cannot be a valid solution when $B > p_F/2$. Hence $p = 10$ is not a valid solution for $B = 10$.

By using parts-equivalency, we obtain the valid p-values of 11, 15, 17, $\cdots$.

The general string-run diagrams with the relevant data for the more commonly encountered 1-string Regular C$_1$F*C$_1$ Braids (the Regular C$_1$F*C$_1$ Knots) with $2x = (p_F - 2)$ are presented on pp. 124–162.

The data on these pages can again readily be obtained from the basic data on pp. 96–122 with the aid of the Complemental Law, Parts-equivalency, and Bights-equivalency.

Some of the general string-run diagrams associated with $2x = (p_F - 2)$ and $2x = p_F$ contain the same sequences of valid p-values. In Fig. 13 are depicted the string-runs of the Regular Flat Braid components for which $x = 2$. For the uppermost diagram $2x = p_F$, and for the four lower diagrams $2x = (p_F - 2)$.

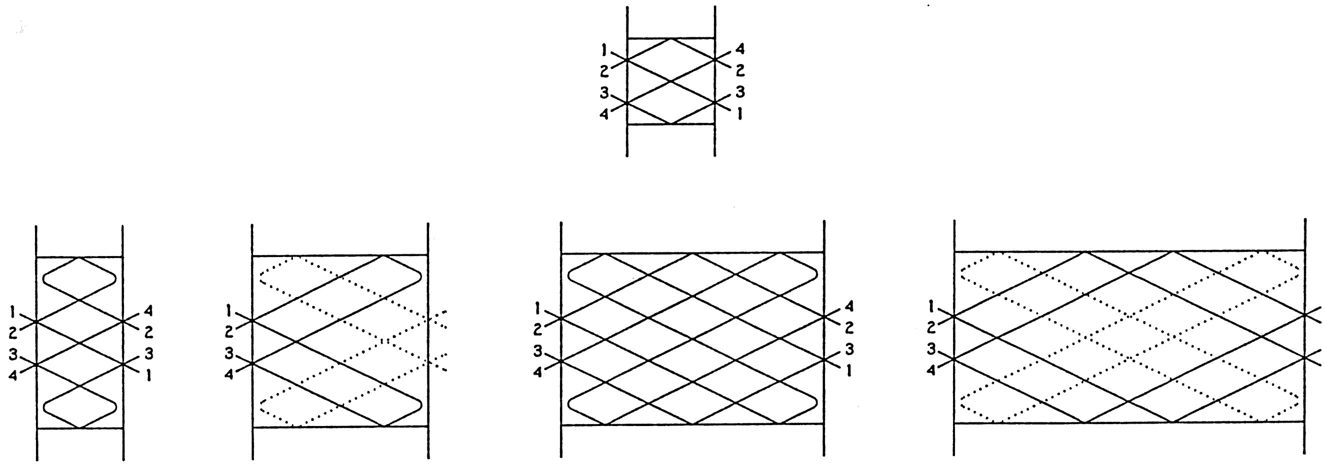


Fig. 13 — The string-runs of the Regular Flat Braid components for $x = 2$.

It will readily be seen from these diagrams that the Flat Braid component $P^* = 8n+2$ is equivalent to the Flat Braid component $P^* = 4n+2$. Hence the valid p-values in the first (uppermost) diagram on pg. 96 are the same as those in the first (uppermost) diagram on pg. 26; there are no valid p-values in the second diagram on pg. 96 since there are no valid p-values in the second diagram on pg. 26. The valid p-values in the first (uppermost) diagram on pg. 124 are the same as those in the first (uppermost) diagram on pg. 57; there are no valid p-values in the first (uppermost) diagram on pg. 125 since there are no valid p-values in the third diagram on pg. 57. The valid p-values in the first (uppermost) diagram on pg. 126 are the same as those in the first (uppermost) diagram on pg. 58; there are no valid p-values in the first (uppermost) diagram on pg. 127 since there are no valid p-values in the third diagram on pg. 58.

The Flat Braid component $P^* = 8n + 4$ clearly shows that no valid p-values can be associated with it.

The Flat Braid component $P^* = 8n + 6$ is equivalent to the Flat Braid component $P^* = 4n + 2$. Hence the valid p-values in the first (uppermost) diagram on pg. 97 are the same as those in the first (uppermost) diagram on pg. 26; there are no valid p-values in the second diagram on pg. 97 since there are no valid p-values in the second diagram on pg. 26. The valid p-values in the third diagram on pg. 124 are the same as those in the first (uppermost) diagram on pg. 57; there are no valid p-values in the third diagram on pg. 125 since there are no valid p-values in the third diagram on pg. 57. The valid p-values in the third diagram on pg. 126 are the same as those in the first (uppermost) diagram on pg. 58; there are no valid p-values in the third diagram on pg. 127 since there are no valid p-values in the third diagram on pg. 58.

The Flat Braid component $P^* = 8n + 8$ shows that no valid p-values can be associated with it.

The diagrams in Fig. 14 depict the string-runs of the Regular Flat Braid components for which $x = 3$. For the uppermost row of diagrams $2x = p_F$, and for the two lower rows of diagrams $2x = (p_F - 2)$.

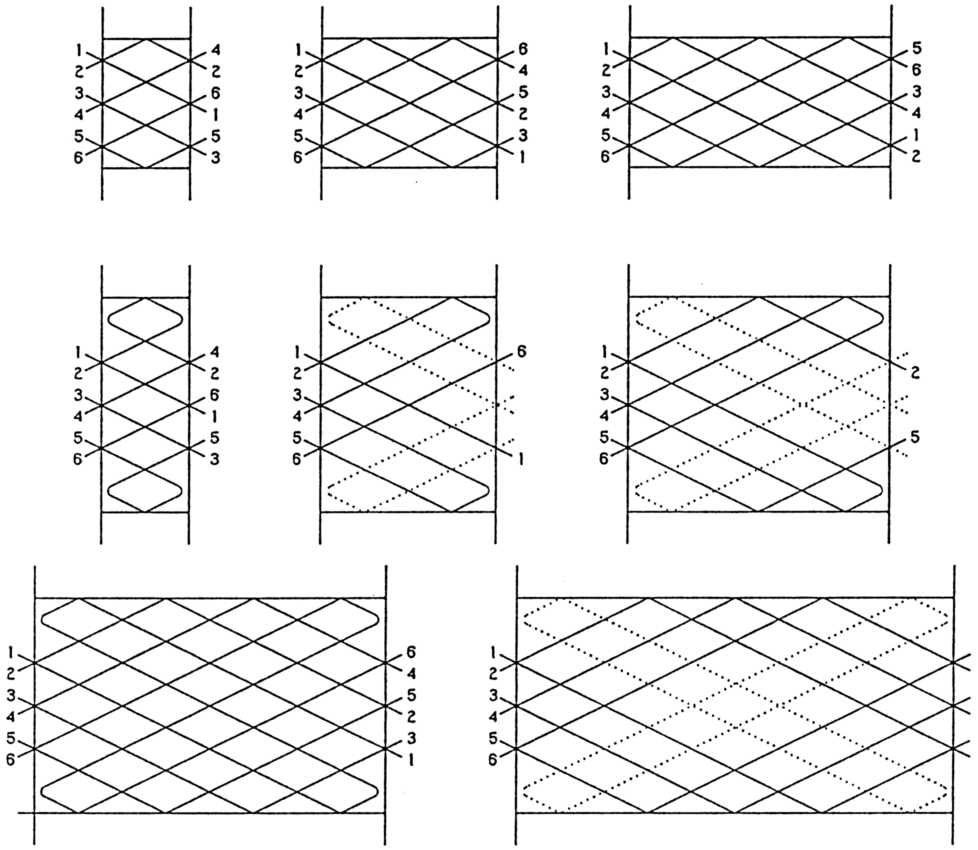


Fig. 14 — The string-runs of the Regular Flat Braid components for $x = 3$.

The Flat Braid component $P^* = 10n + 2$ is equivalent to the Flat Braid component $P^* = 6n + 2$.

The Flat Braid component $P^* = 10n + 4$ is equivalent to the Flat Braid component $P^* = 6n + 4$.

The Flat Braid component $P^* = 10n + 6$ is equivalent to the Flat Braid component $P^* = 6n + 2$.

The Flat Braid component $P^* = 10n + 8$ is equivalent to the Flat Braid component $P^* = 6n + 4$.

The Flat Braid component $P^* = 10n + 10$ shows again clearly that no valid p-values can be associated with it.

The diagrams in Fig. 15 depict the string-runs of the Regular Flat Braid components for which $x = 4$. For the uppermost row of diagrams $2x = p_F$, and for the two lower rows of diagrams $2x = (p_F - 2)$.

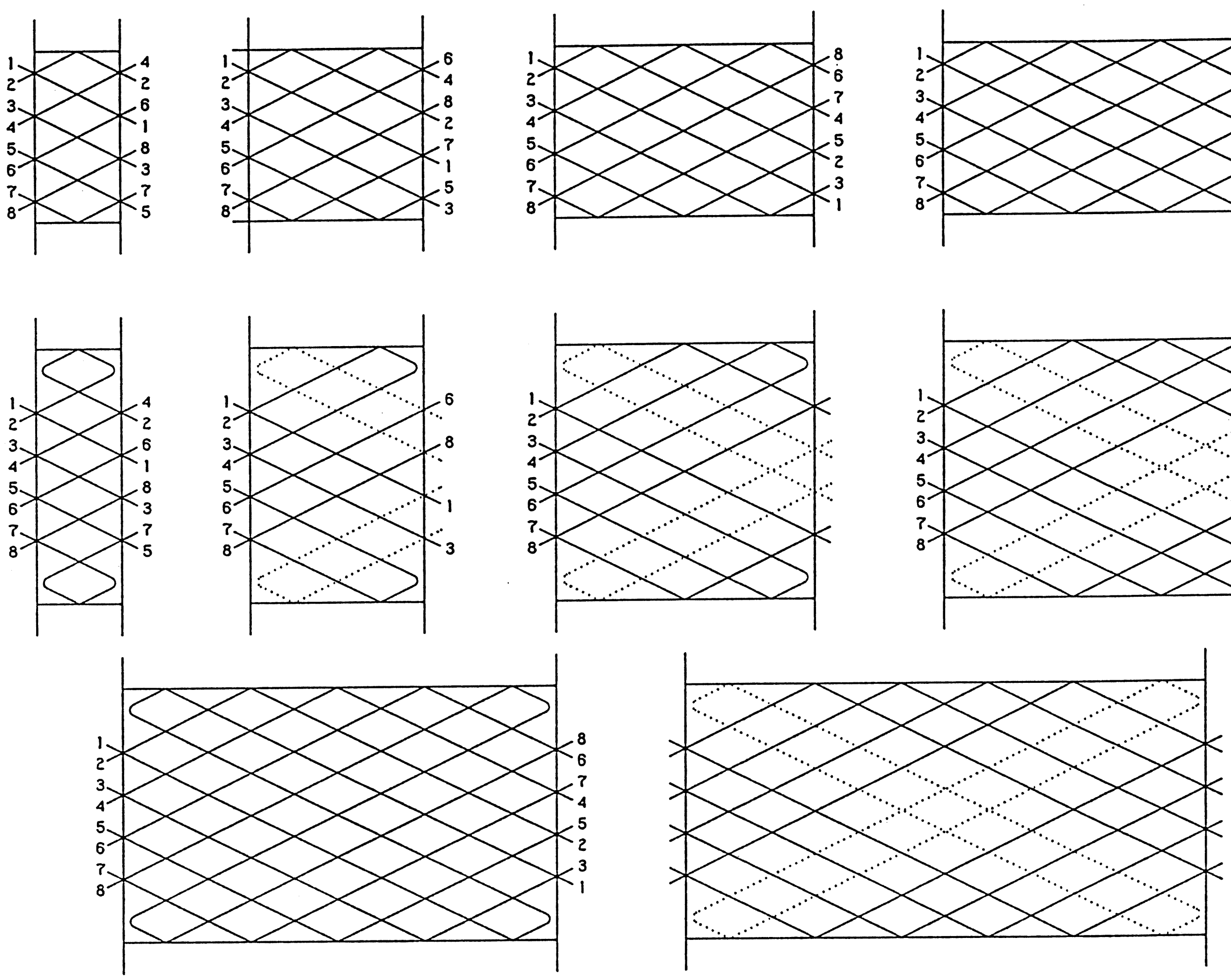


Fig. 15 — The string-runs of the Regular Flat Braid components for $x = 4$.

The Flat Braid component $P^* = 12n+2$ is equivalent to the Flat Braid component $P^* = 8n+2$.

The Flat Braid component $P^* = 12n+4$ is equivalent to the Flat Braid component $P^* = 8n+4$.

The Flat Braid component $P^* = 12n+8$ is equivalent to the Flat Braid component $P^* = 8n+4$.

The Flat Braid component $P^* = 12n+10$ is equivalent to the Flat Braid component $P^* = 8n+6$.

The Flat Braid component $P^* = 12n+12$ shows again clearly that no valid p-values can be associated with it.

The diagrams in Fig. 16 depict the string-runs of the Regular Flat Braid components for which $x = 5$. For the five uppermost diagrams $2x = p_F$, and for the seven lowermost diagrams $2x = (p_F - 2)$.

The Flat Braid component $P^* = 14n+2$ is equivalent to the Flat Braid component $P^* = 10n+2$. The Flat Braid component $P^* = 14n+4$ is equivalent to the Flat Braid component $P^* = 10n+4$. The Flat Braid component $P^* = 14n+10$ is equivalent to the Flat Braid component $P^* = 10n+6$. The Flat Braid component $P^* = 14n+12$ is equivalent to the Flat Braid component $P^* = 10n+8$. The Flat Braid component $P^* = 14n+14$ shows again that no valid p-values can be associated with it.

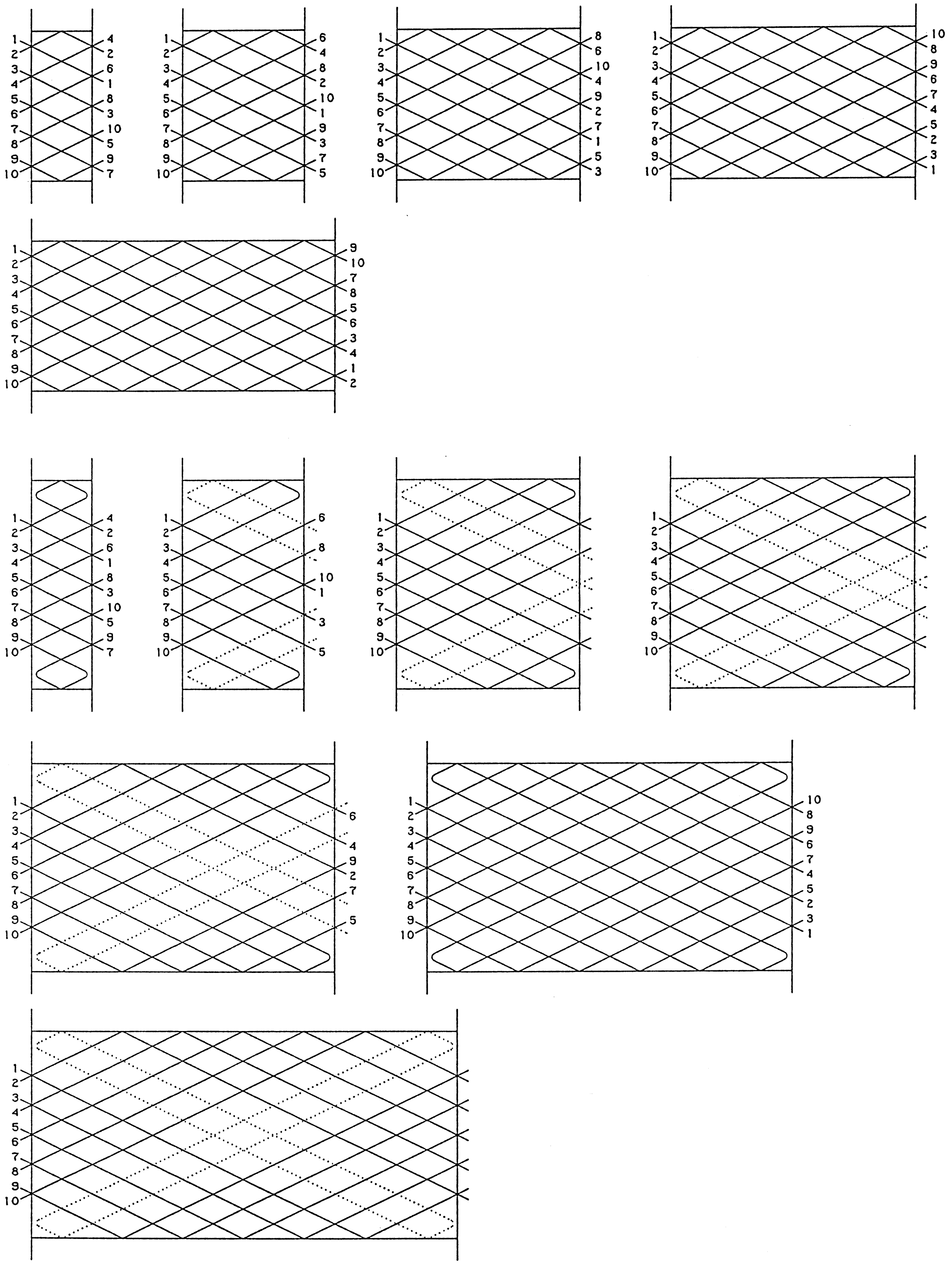


Fig. 16 — The string-runs of the Regular Flat Braid components for $x = 5$.

pp. 26 — 55

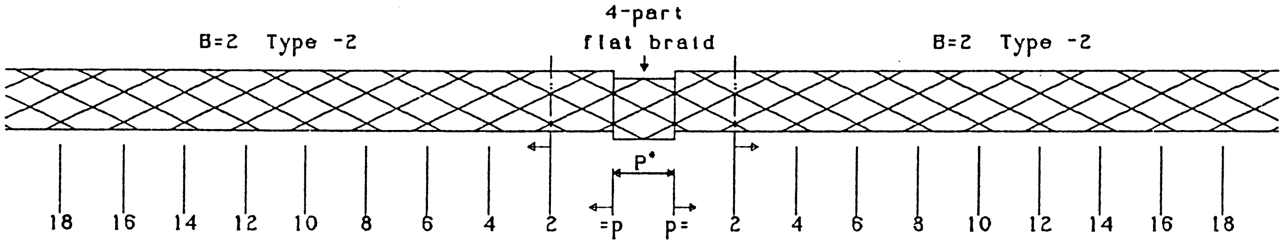
Basic Regular $C_1F^*C_1$ Knots

with

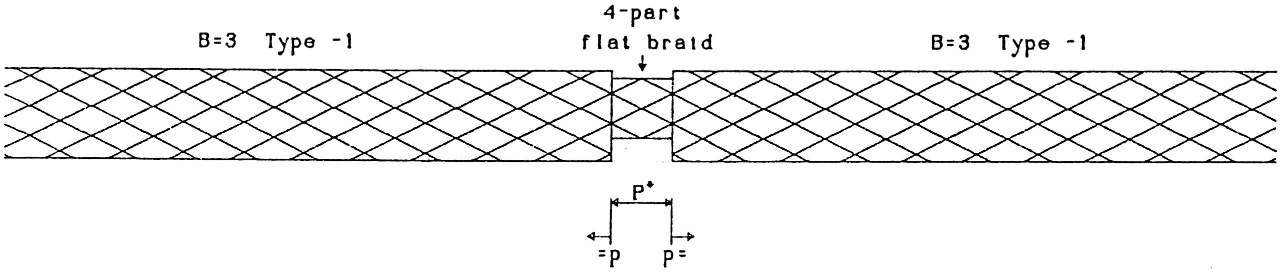
$2x=p_F$

$p_F=4,6,8,10,12.$

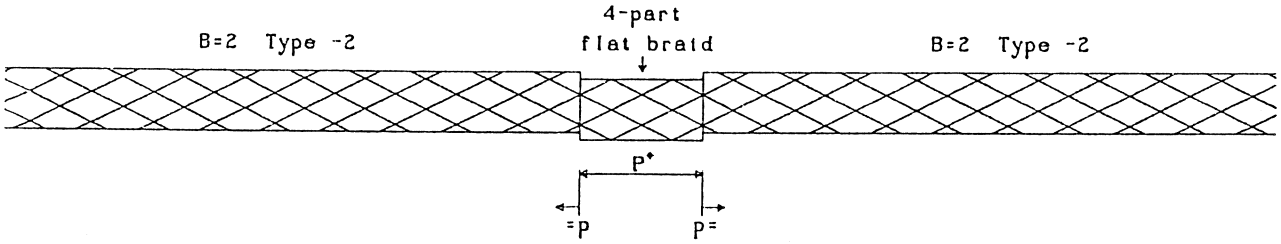
$\frac{p_F}{2} \leq B \leq p_F - 1.$



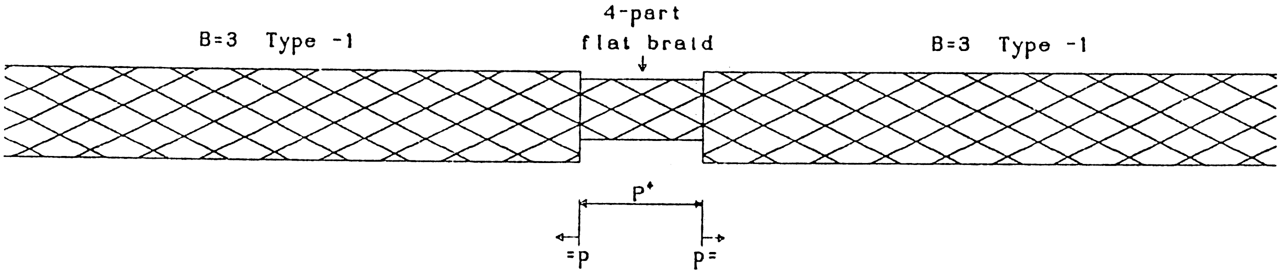
1-string solutions for $P^*=4n+2$ with n=0.1.2.3....



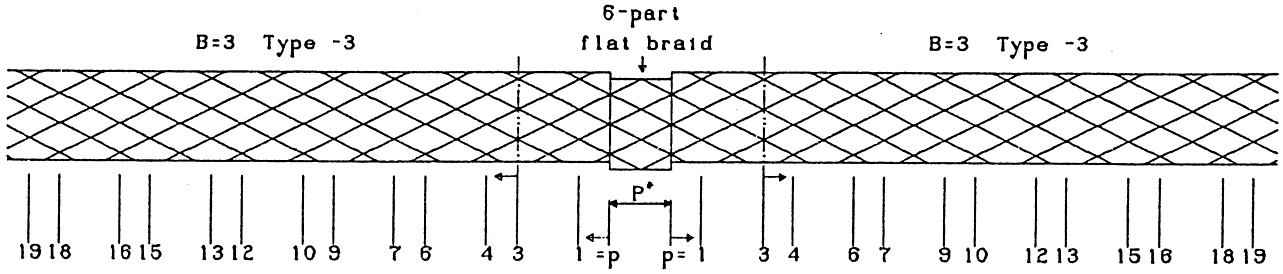
NO 1-string solutions for $P^*=4n+2$ with n=0.1.2.3....



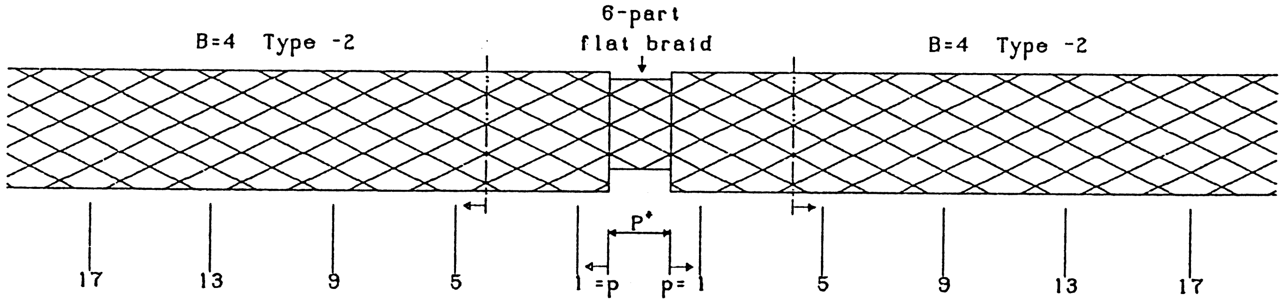
NO 1-string solutions for $P^*=4n+4$ with n=0.1.2.3....



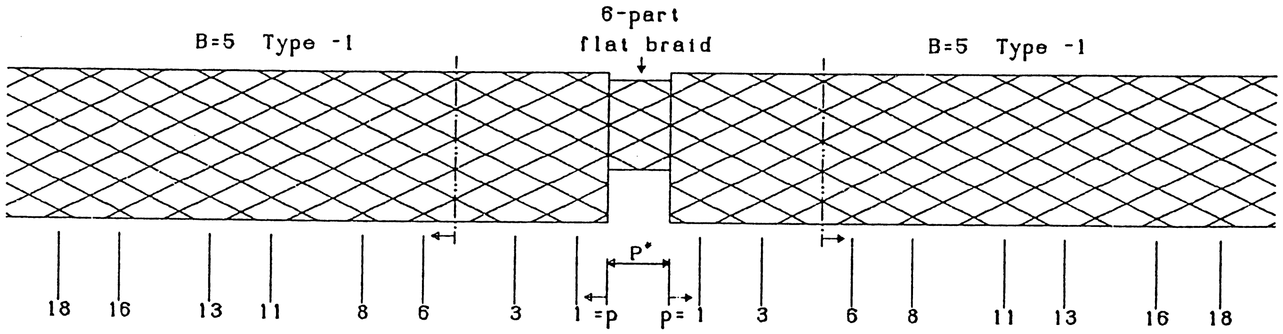
NO 1-string solutions for $P^*=4n+4$ with n=0.1.2.3....


6-part
flat braid
B=3 Type -3
B=3 Type -3
P*
19 18 16 15 13 12 10 9 7 6 4 3 1 =p p= 1 3 4 6 7 9 10 12 13 15 16 18 19

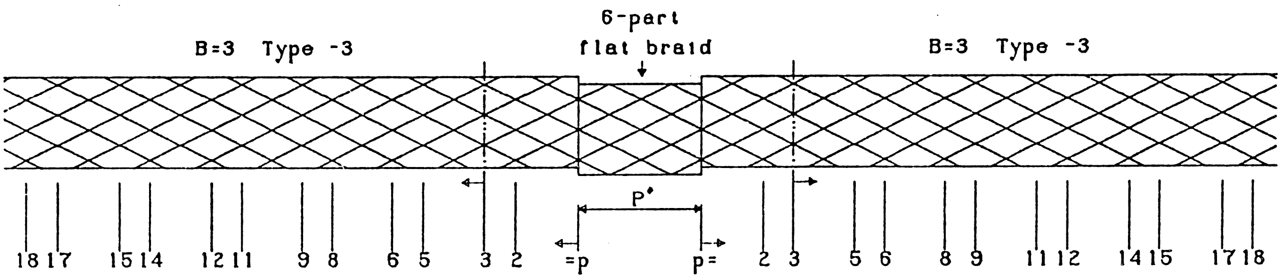
1-string solutions for P*=6n+2 with n=0.1.2.3....



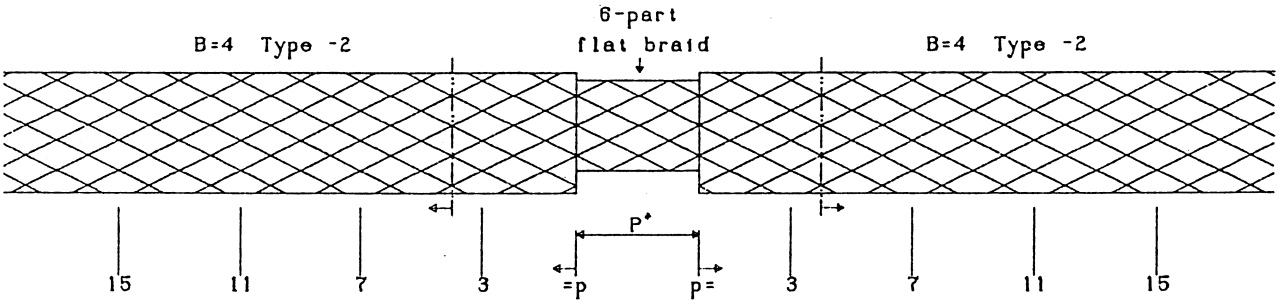
1-string solutions for P*=6n+2 with n=0.1.2.3....



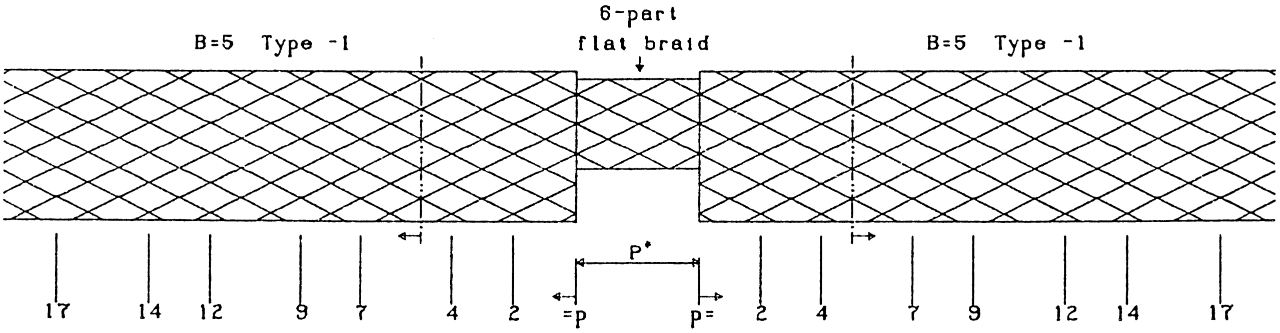
1-string solutions for P*=6n+2 with n=0.1.2.3....



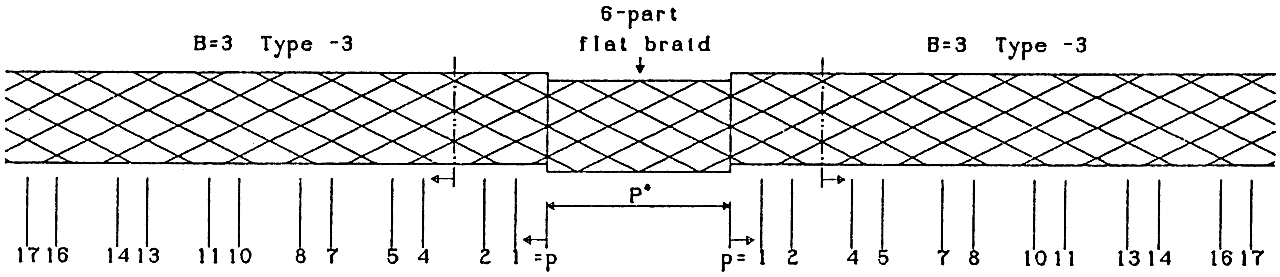
1-string solutions for P*=6n+4 with n=0.1.2.3....



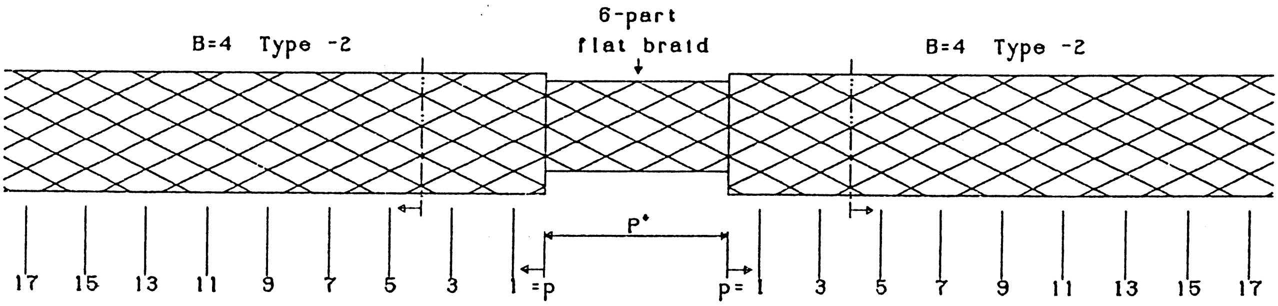
1-string solutions for P*=6n+4 with n=0.1.2.3....



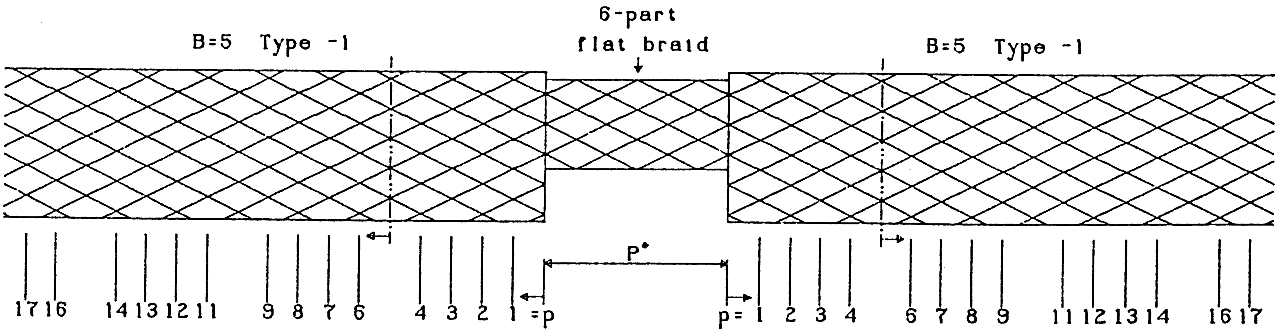
1-string solutions for P*=6n+4 with n=0.1.2.3....


6-part
flat braid
B=3 Type -3
B=3 Type -3
P^*
17 16 14 13 11 10 8 7 5 4 2 1 =p
p= 1 2 4 5 7 8 10 11 13 14 16 17

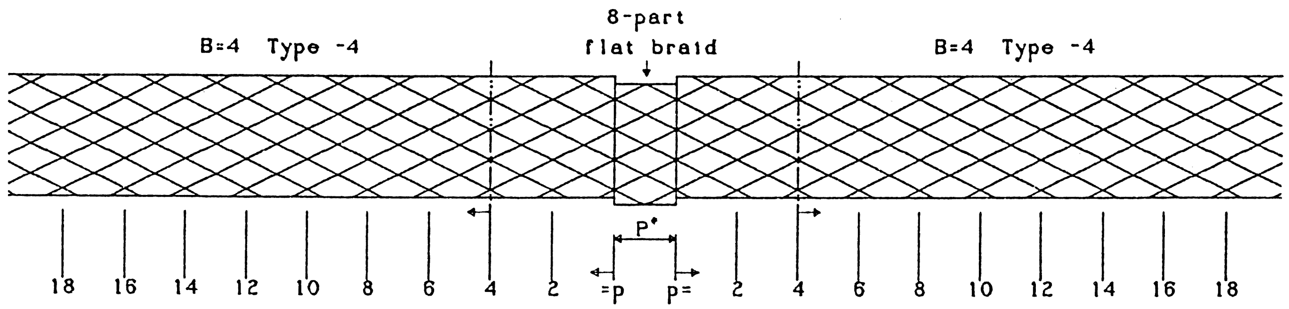
1-string solutions for $P^*=6n+6$ with n=0.1.2.3....



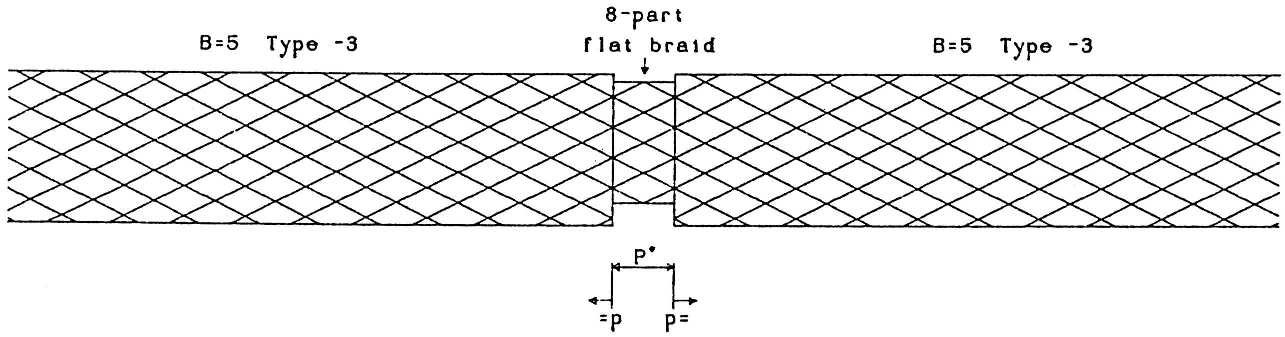
1-string solutions for $P^*=6n+6$ with n=0.1.2.3....


6-part
flat braid
B=5 Type -1
B=5 Type -1
P^*
17 16 14 13 12 11 9 8 7 6 4 3 2 1 =p
p= 1 2 3 4 6 7 8 9 11 12 13 14 16 17

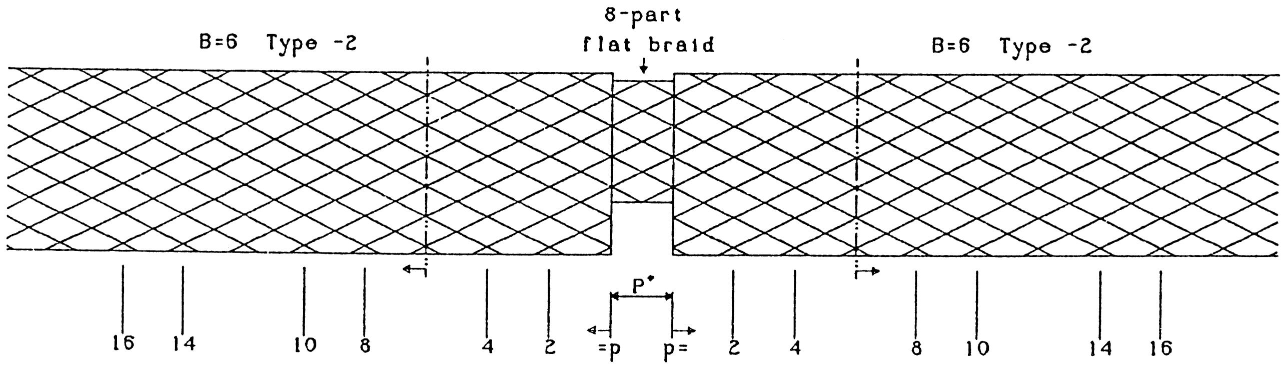
1-string solutions for $P^*=6n+6$ with n=0.1.2.3....



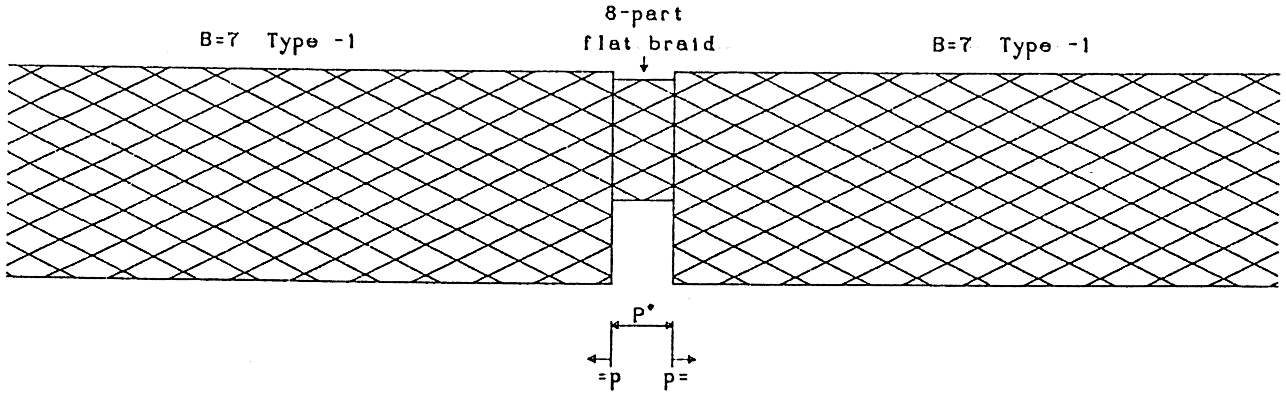
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



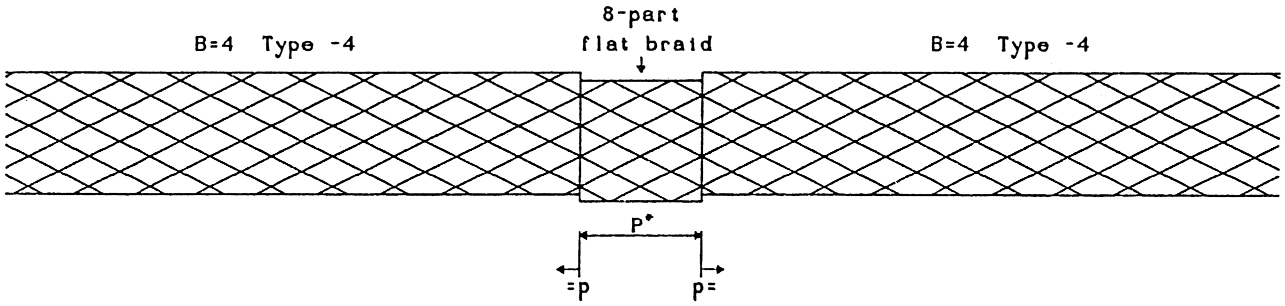
NO 1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



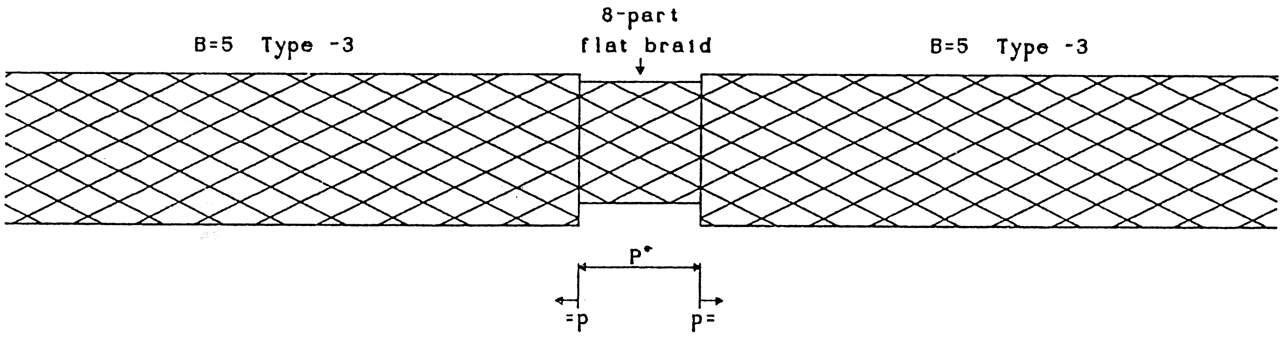
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



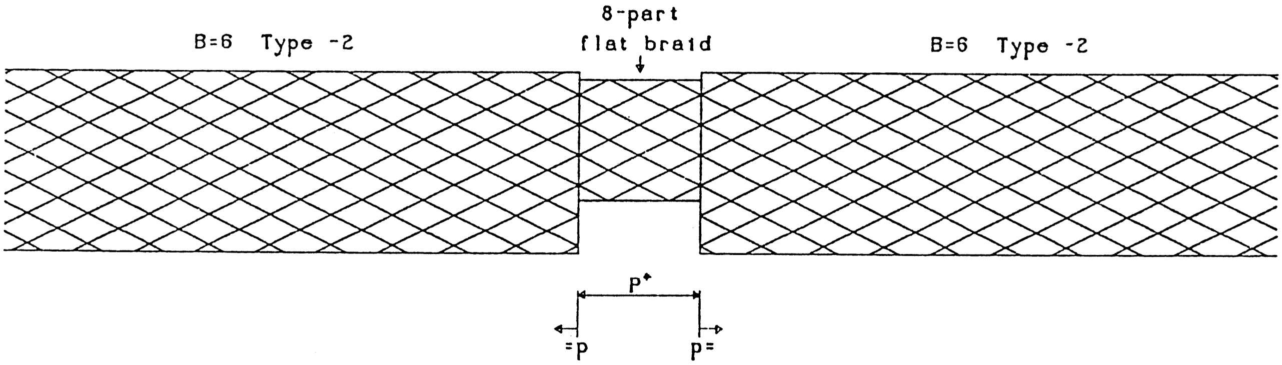
NO 1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



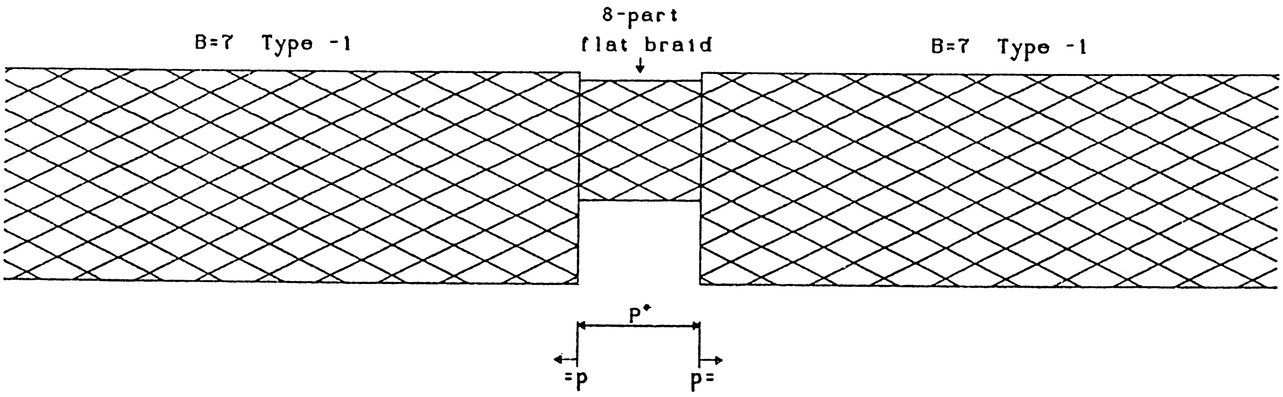
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



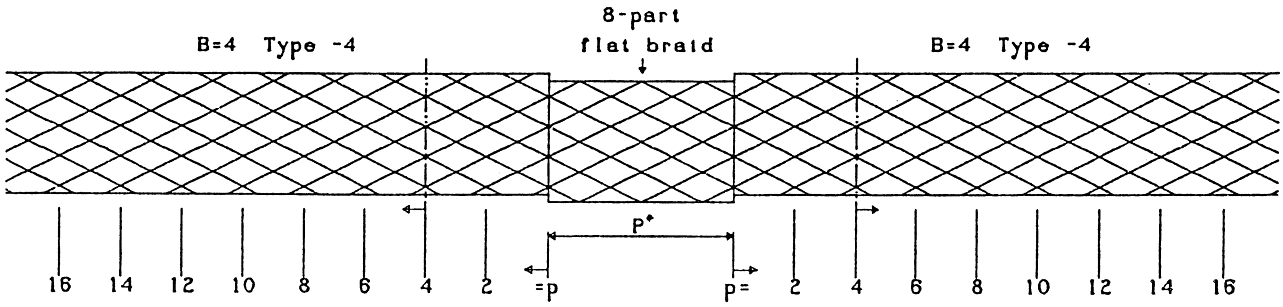
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



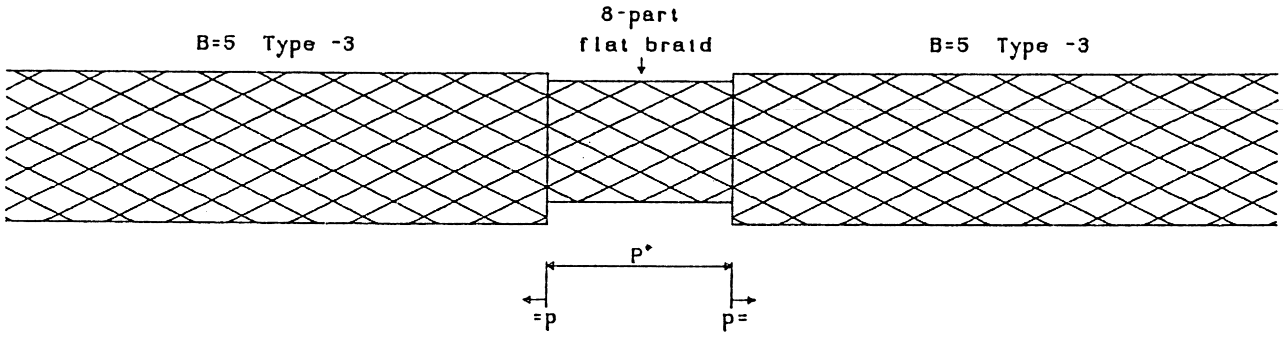
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



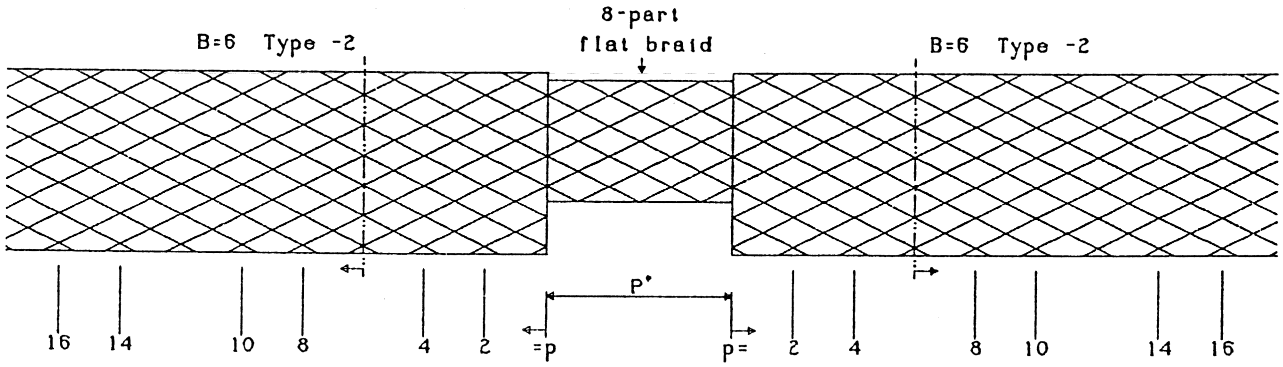
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



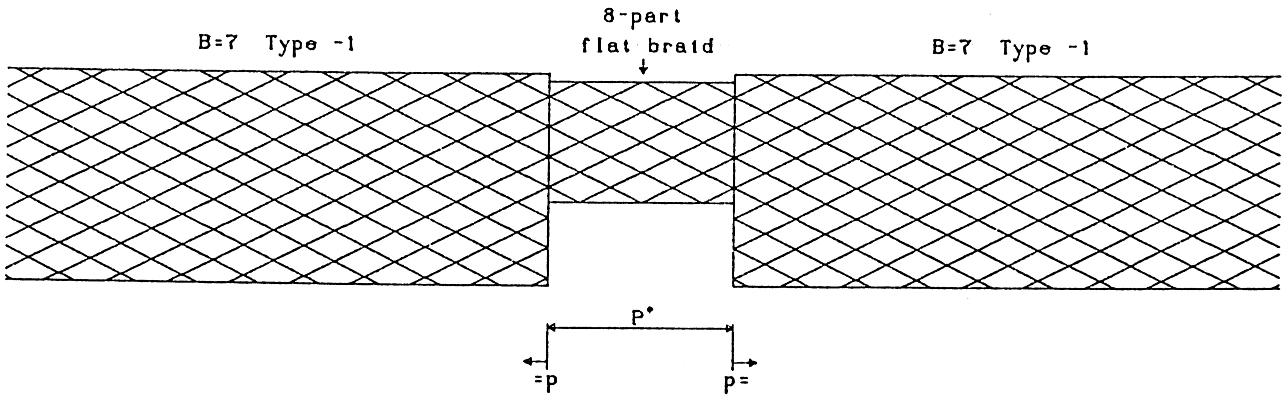
1-string solutions for P^*=8n+6 with n=0.1.2.3....



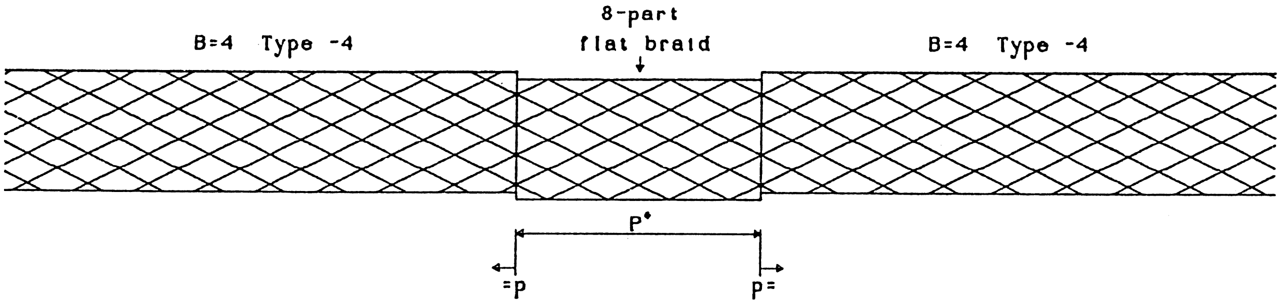
NO 1-string solutions for P^*=8n+6 with n=0.1.2.3....



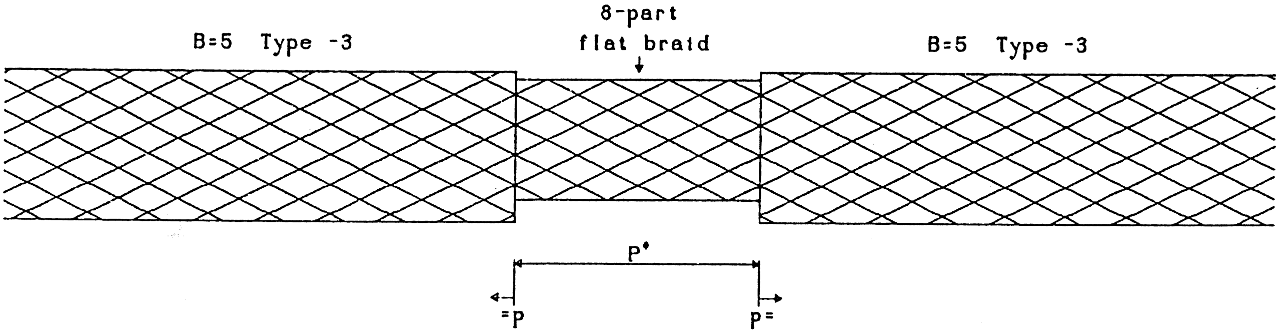
1-string solutions for P^*=8n+6 with n=0.1.2.3....



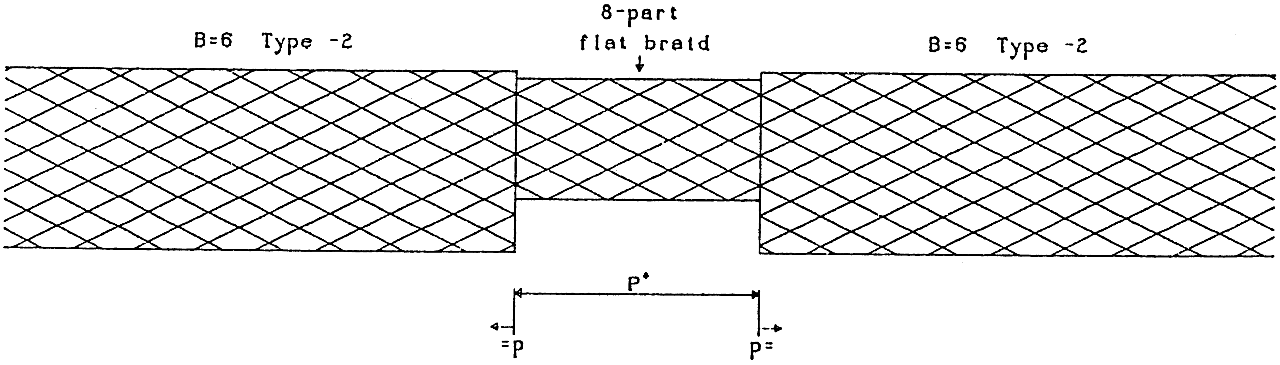
NO 1-string solutions for P^*=8n+6 with n=0.1.2.3....



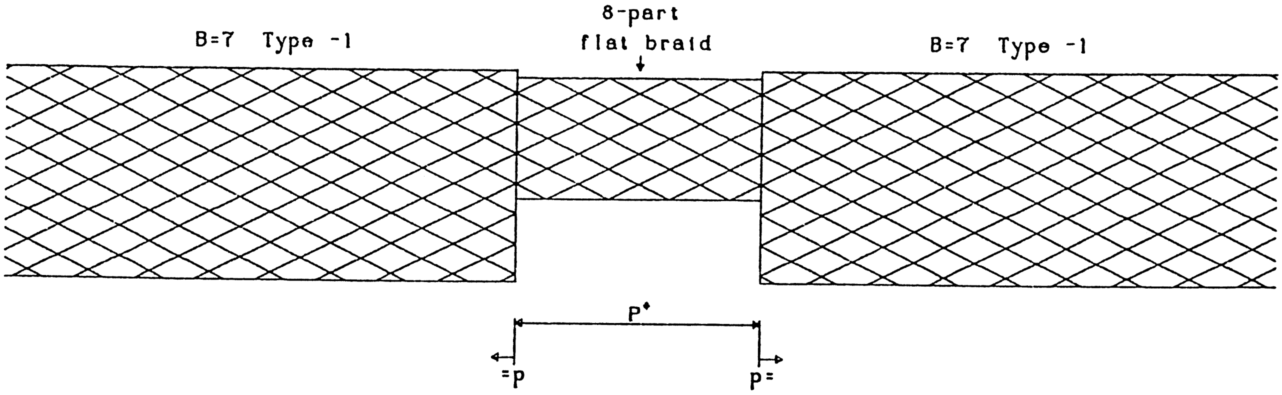
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



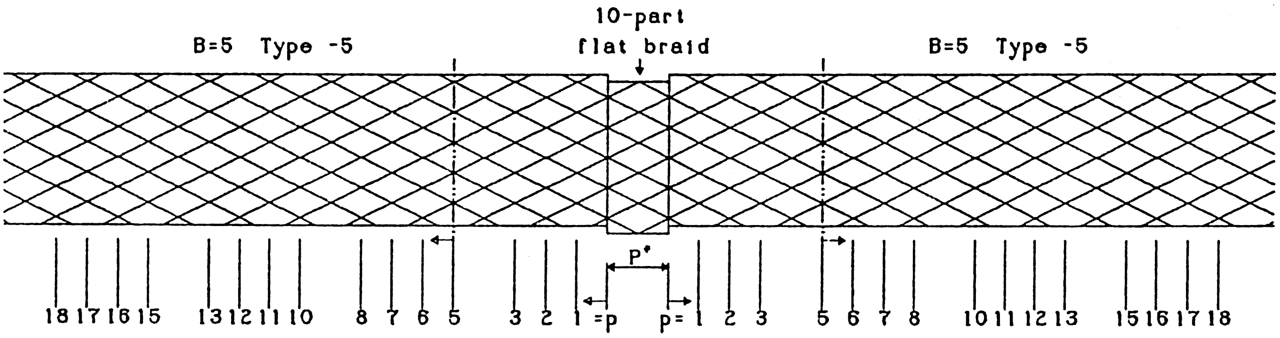
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



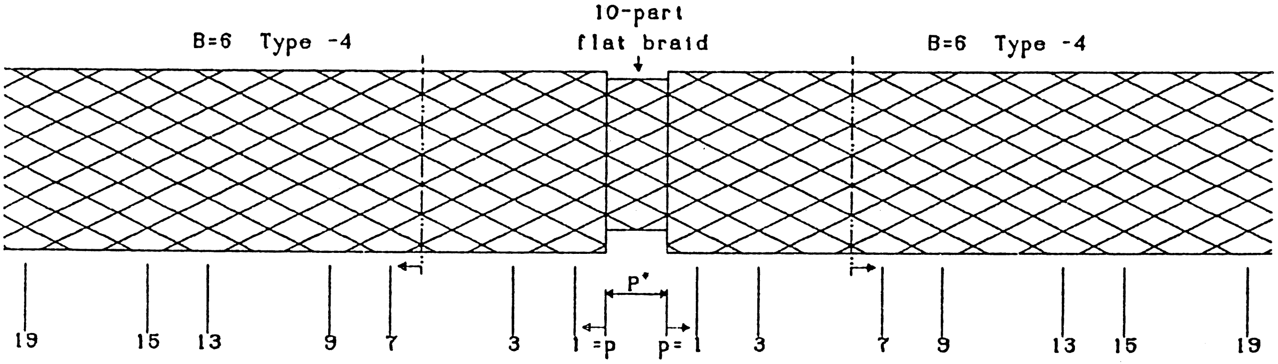
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



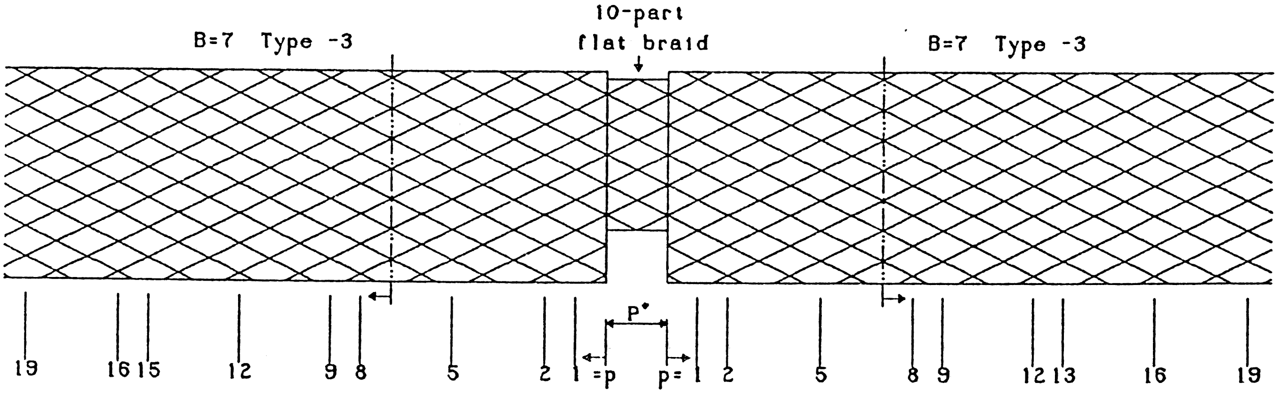
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....


10-part
flat braid
B=5 Type -5
B=5 Type -5
P*
18 17 16 15 13 12 11 10 8 7 6 5 3 2 1 =p
p= 1 2 3 5 6 7 8 10 11 12 13 15 16 17 18

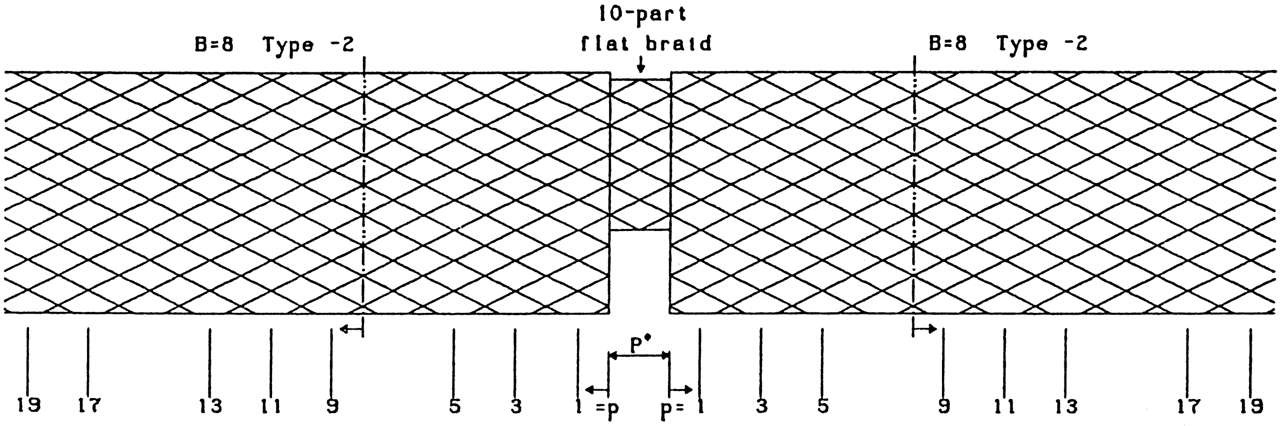
1-string solutions for P*=10n+2 with n=0.1.2.3....



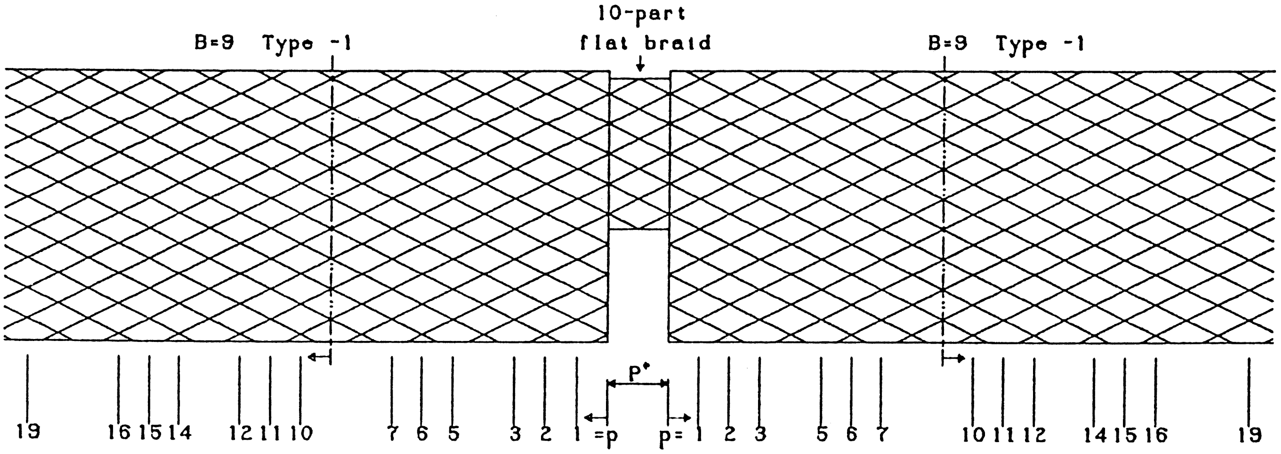
1-string solutions for P*=10n+2 with n=0.1.2.3....



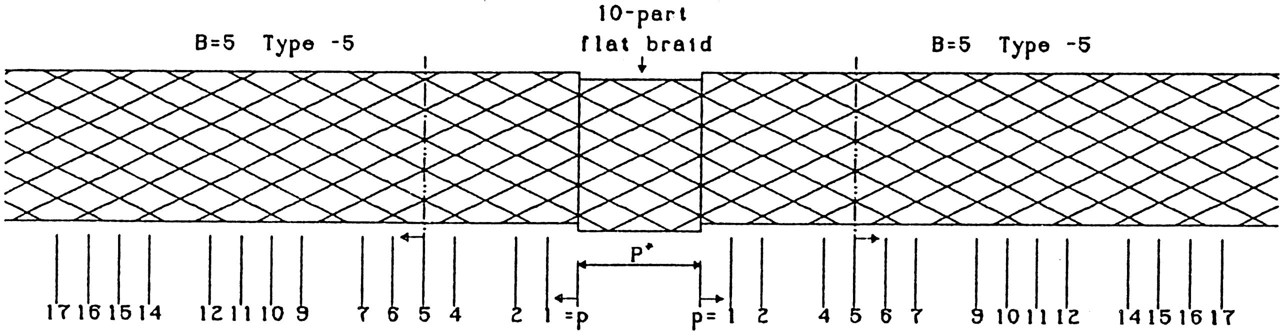
1-string solutions for P*=10n+2 with n=0.1.2.3....



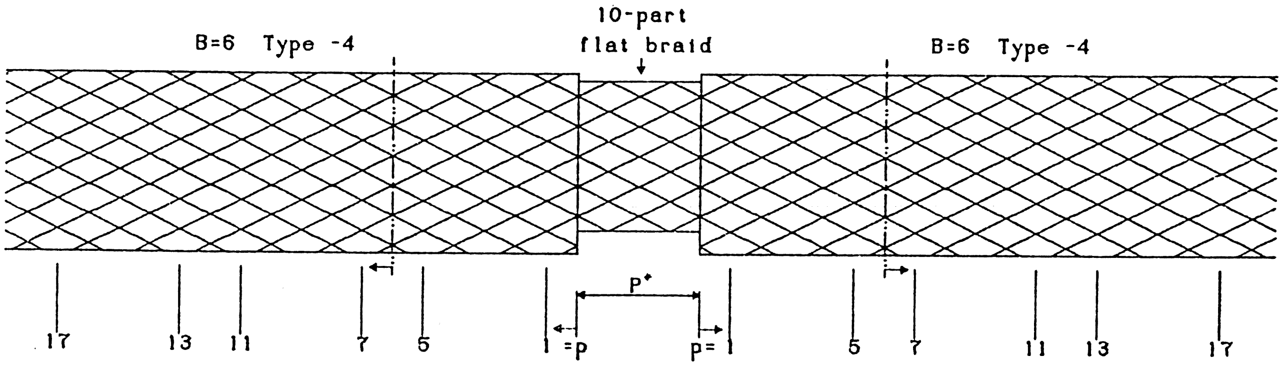
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



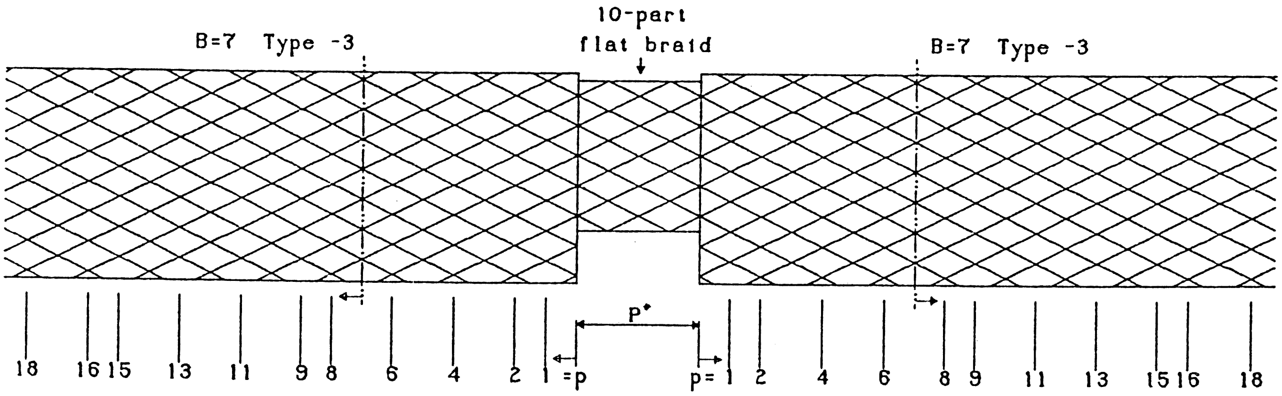
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....


10-part
flat braid
B=5 Type -5
B=5 Type -5
P*
17 16 15 14 12 11 10 9 7 6 5 4 2 1 =p
p= 1 2 4 5 6 7 9 10 11 12 14 15 16 17

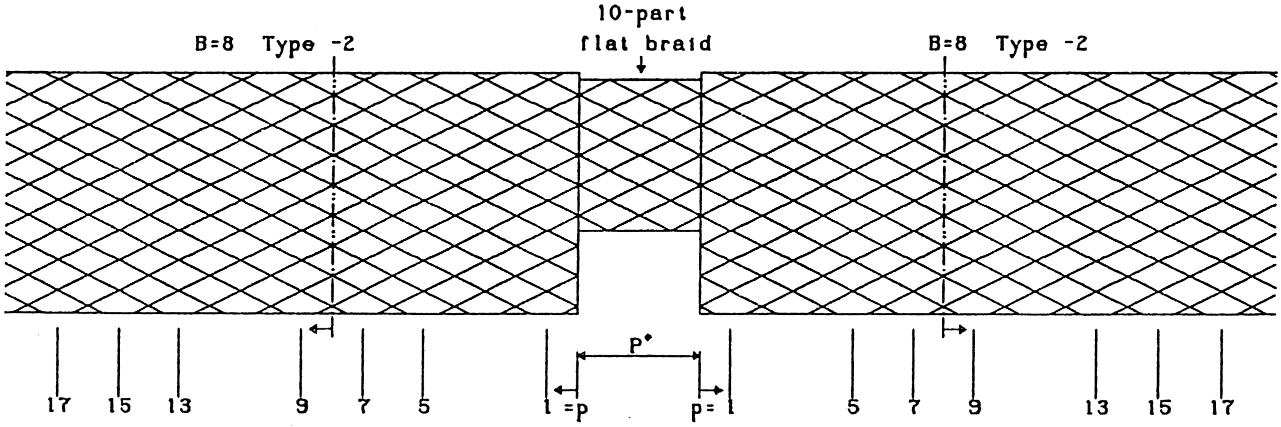
1-string solutions for P*=10n+4 with n=0.1.2.3....



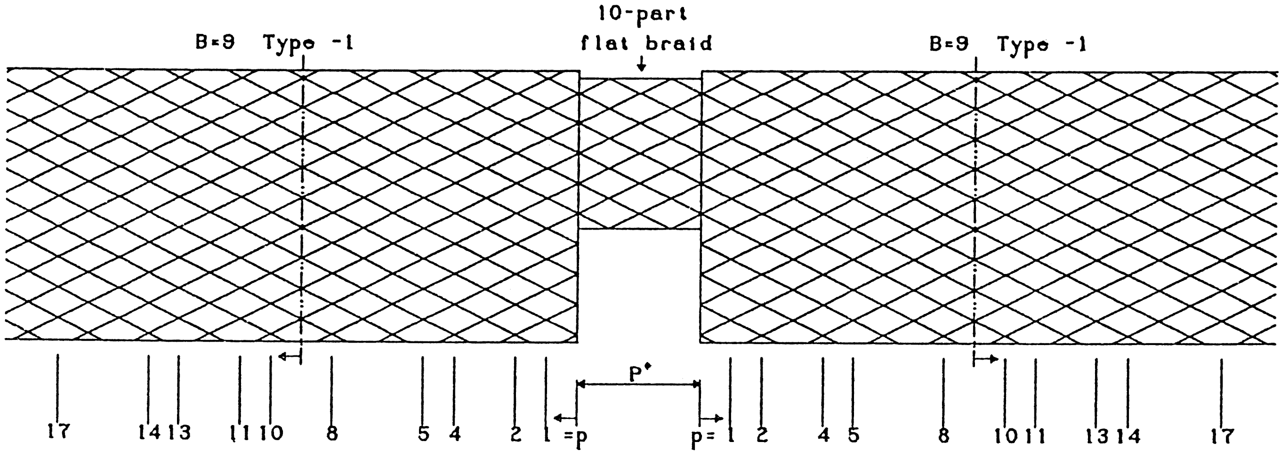
1-string solutions for P*=10n+4 with n=0.1.2.3....



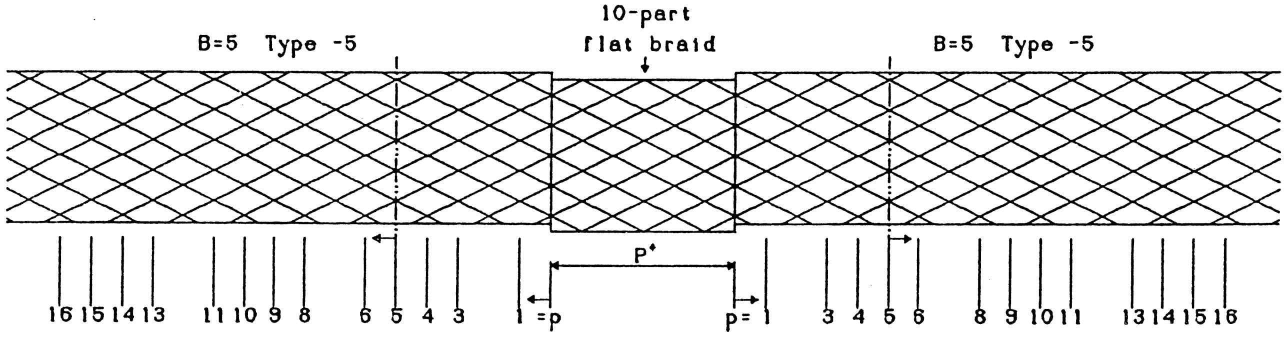
1-string solutions for P*=10n+4 with n=0.1.2.3....



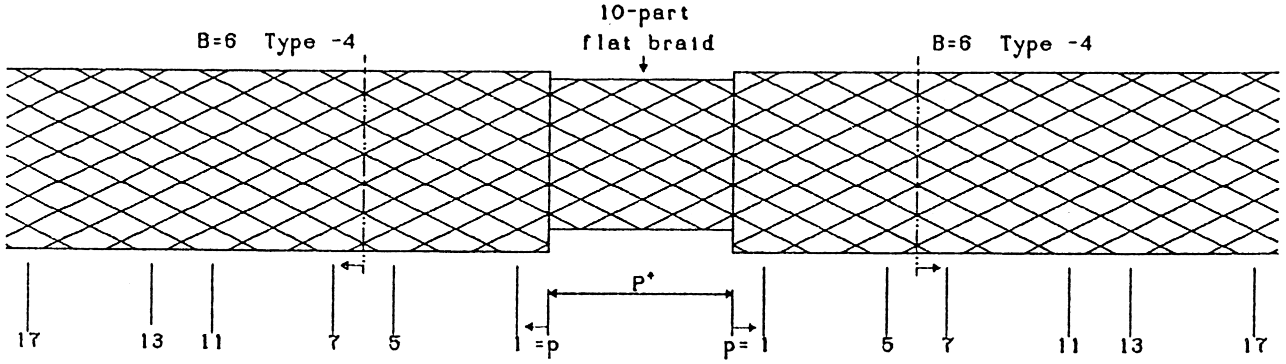
1-string solutions for $P^*=10n+4$ with $n=0,1,2,3....$



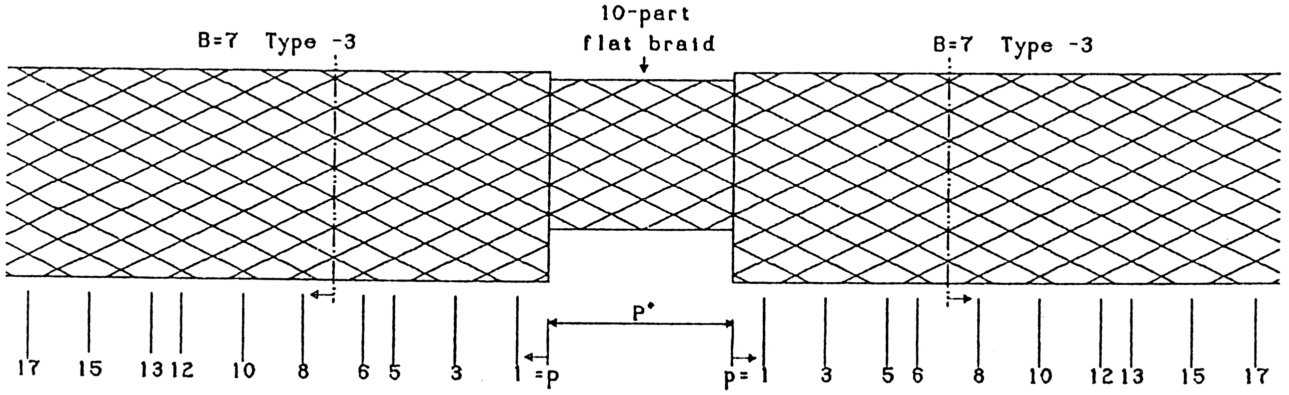
1-string solutions for $P^*=10n+4$ with $n=0,1,2,3....$


10-part
flat braid
B=5 Type -5
B=5 Type -5
P*
16 15 14 13 11 10 9 8 6 5 4 3 1 =p
p= 1 3 4 5 6 8 9 10 11 13 14 15 16

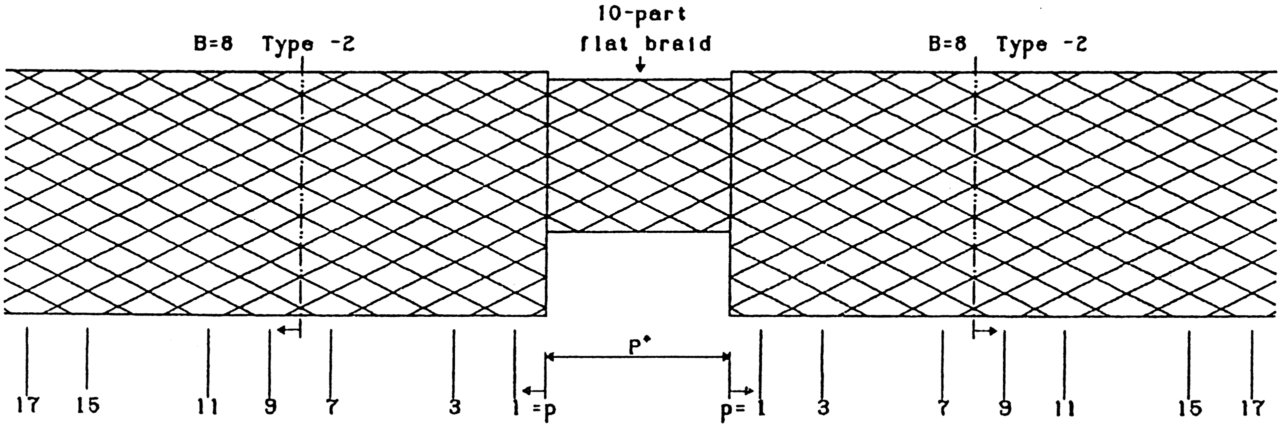
1-string solutions for P*=10n+6 with n=0.1.2.3....



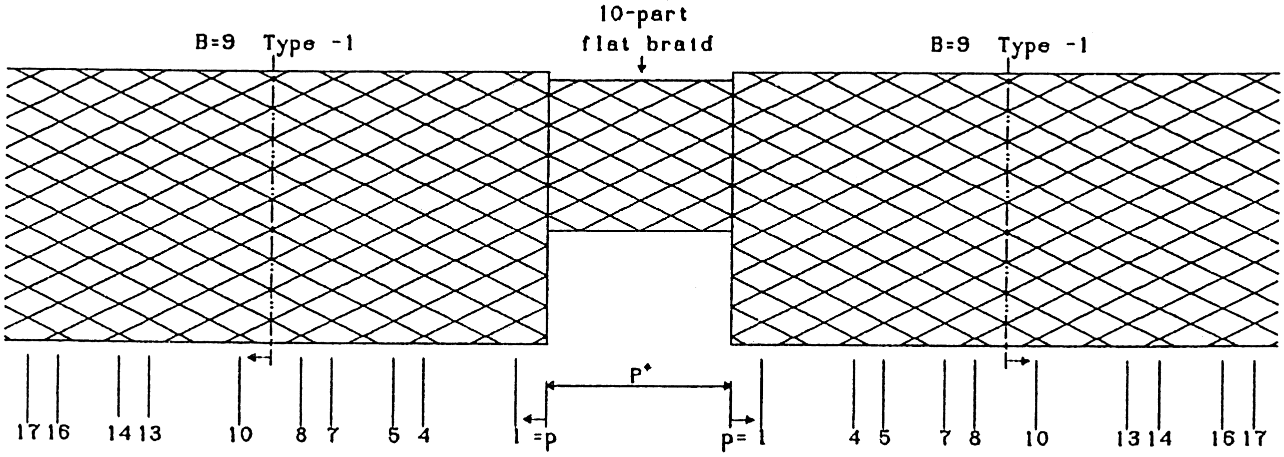
1-string solutions for P*=10n+6 with n=0.1.2.3....



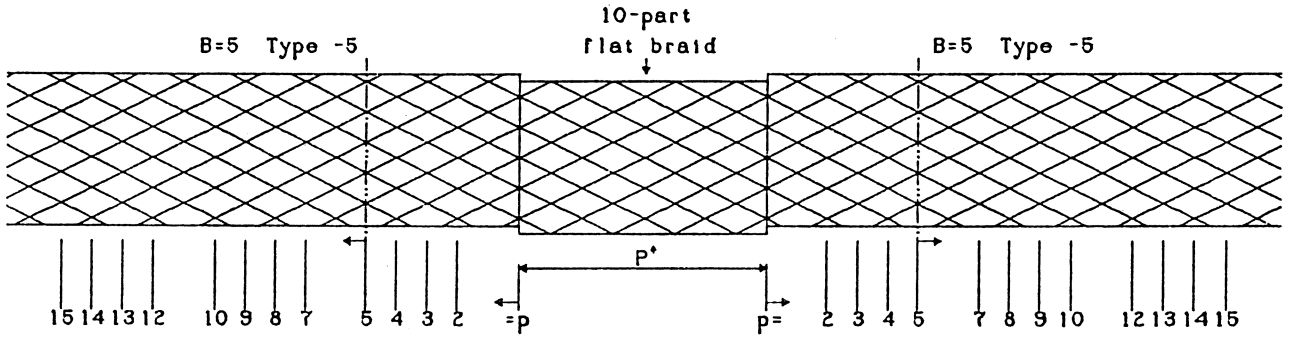
1-string solutions for P*=10n+6 with n=0.1.2.3....



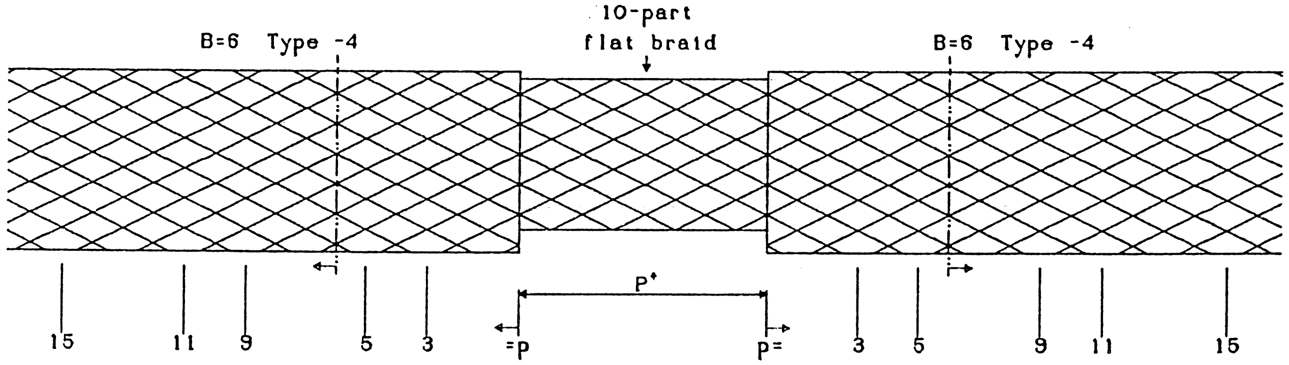
1-string solutions for $P^{*}=10n+6$ with $n=0.1.2.3....$



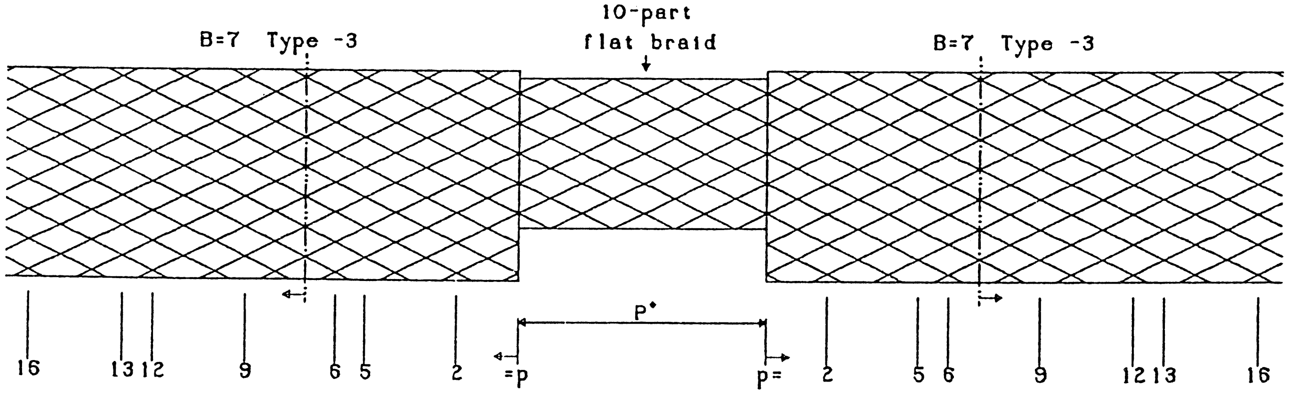
1-string solutions for $P^{*}=10n+6$ with $n=0.1.2.3....$



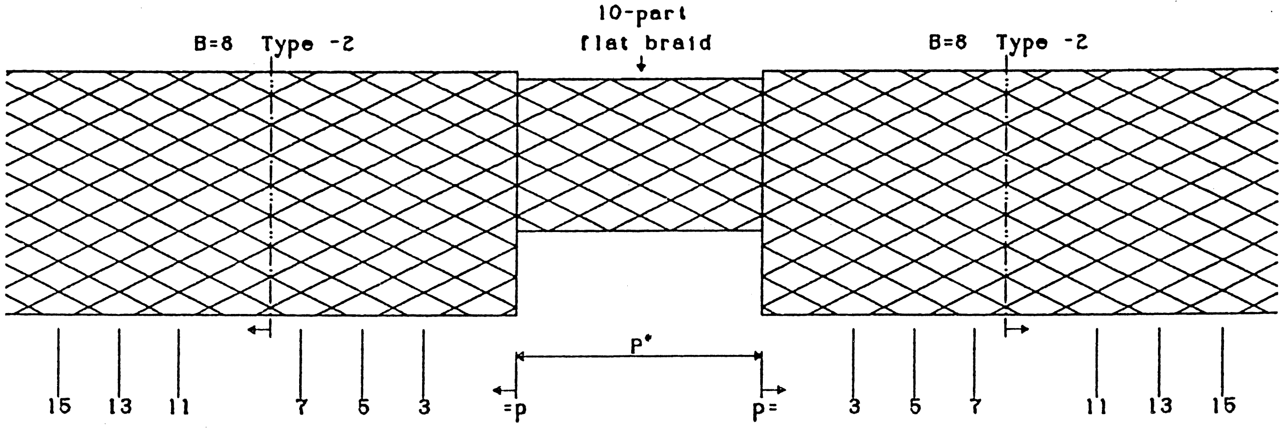
1-string solutions for P*=10n+8 with n=0.1.2.3....



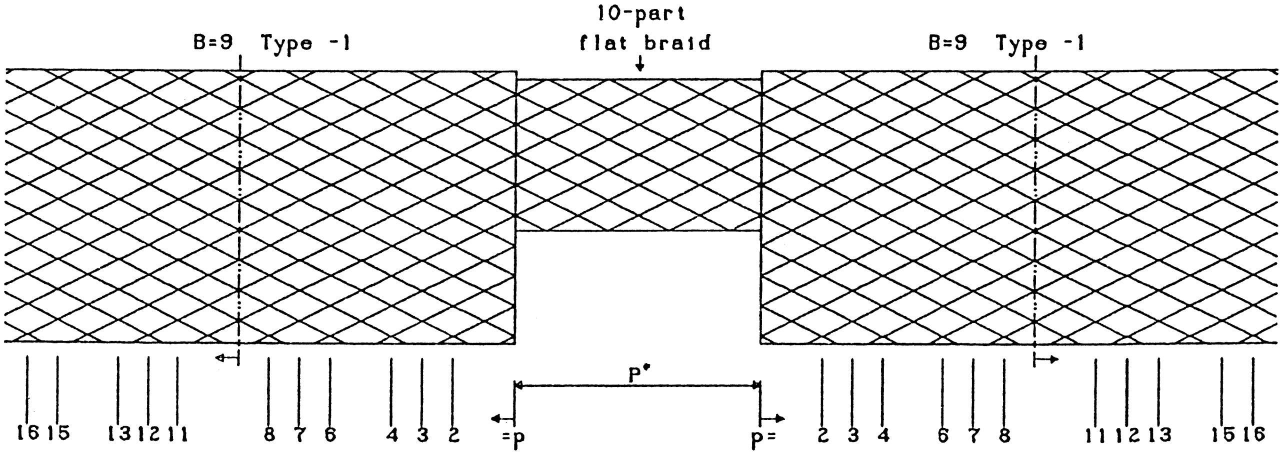
1-string solutions for P*=10n+8 with n=0.1.2.3....



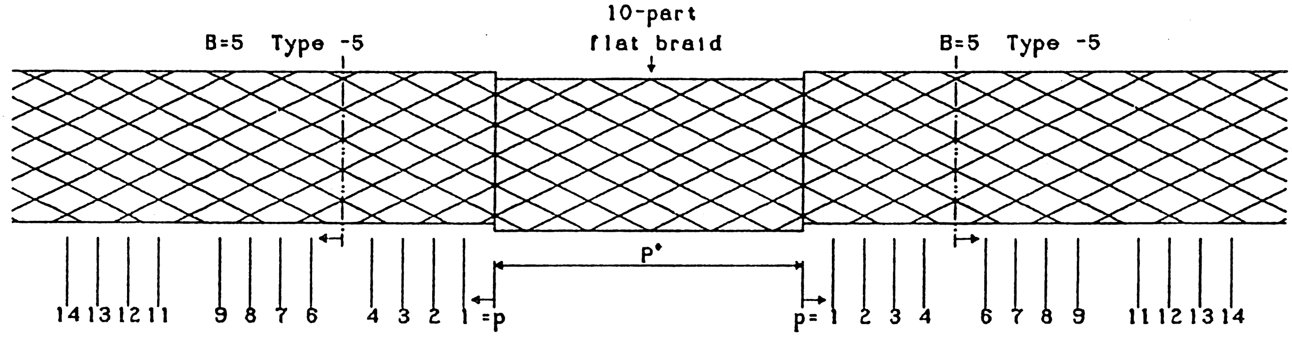
1-string solutions for P*=10n+8 with n=0.1.2.3....



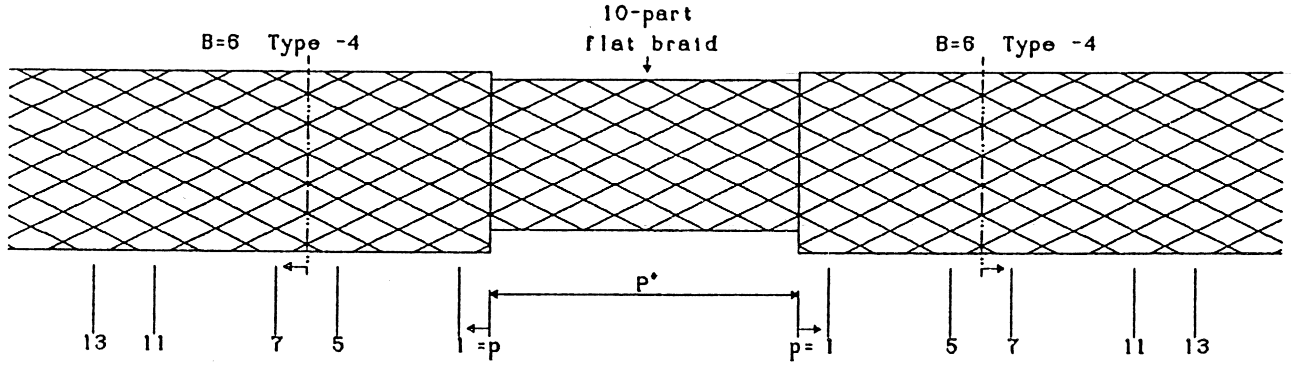
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



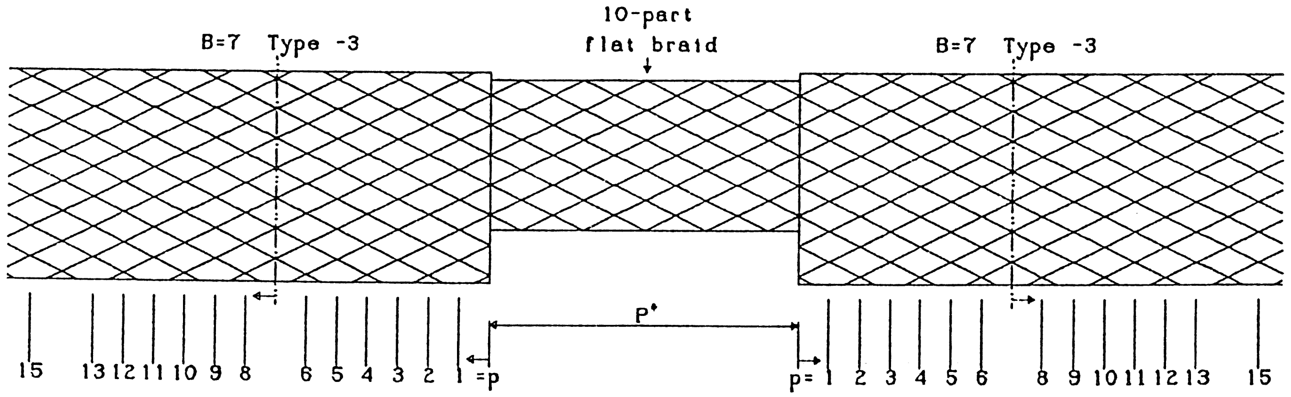
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....


10-part
flat braid
B=5 Type -5
B=5 Type -5
P*
14 13 12 11 9 8 7 6 4 3 2 1 =p
p= 1 2 3 4 6 7 8 9 11 12 13 14

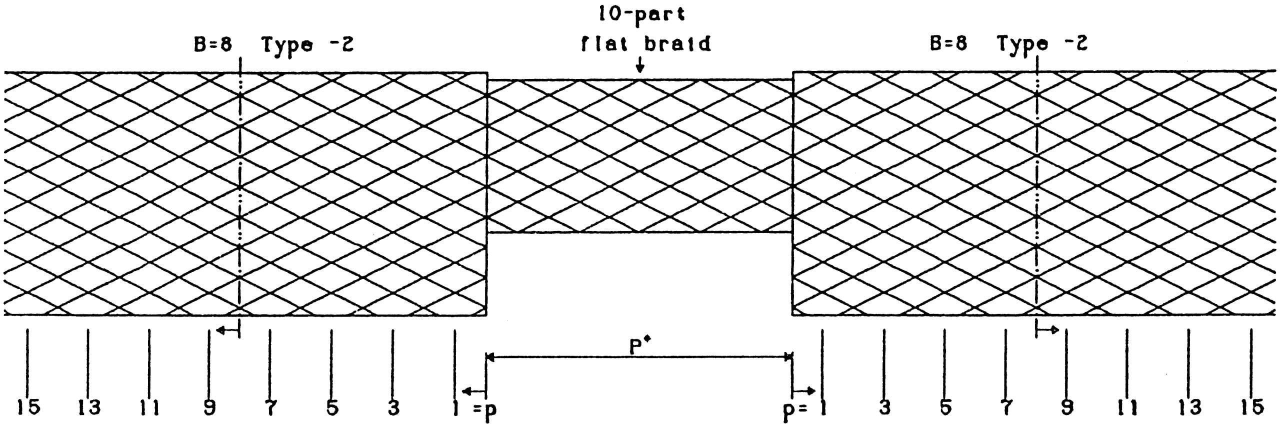
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



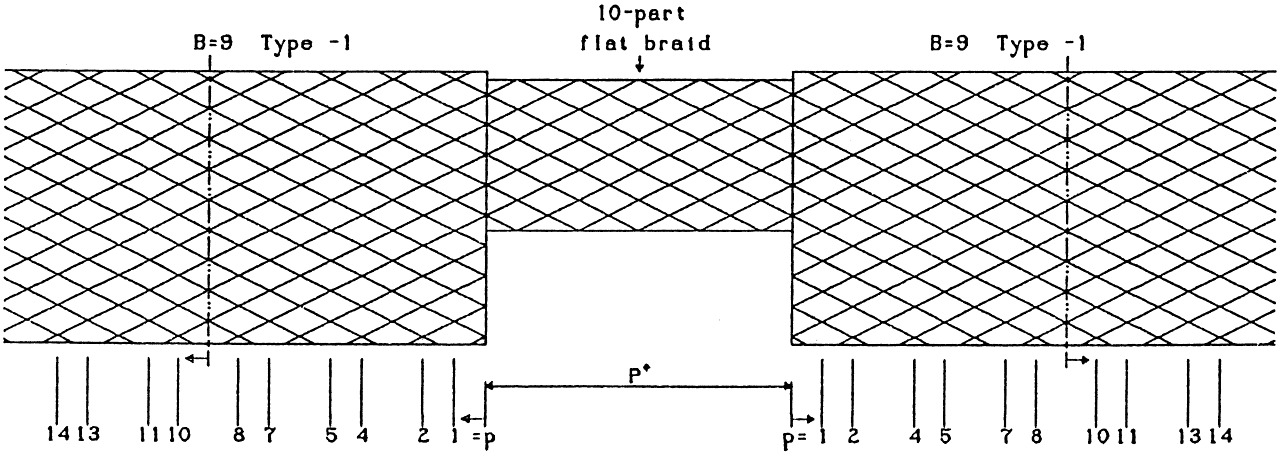
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....


10-part
flat braid
B=7 Type -3
B=7 Type -3
P*
15 13 12 11 10 9 8 6 5 4 3 2 1 =p
p= 1 2 3 4 5 6 8 9 10 11 12 13 15

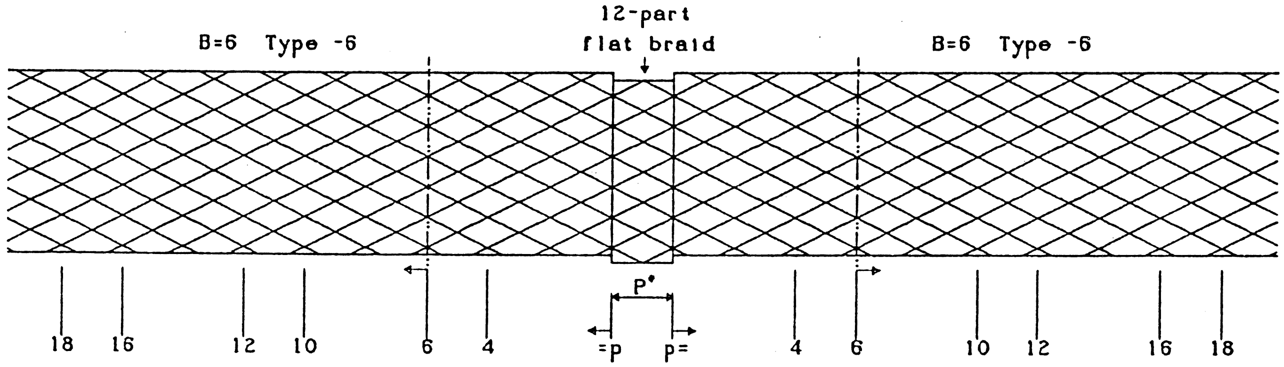
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



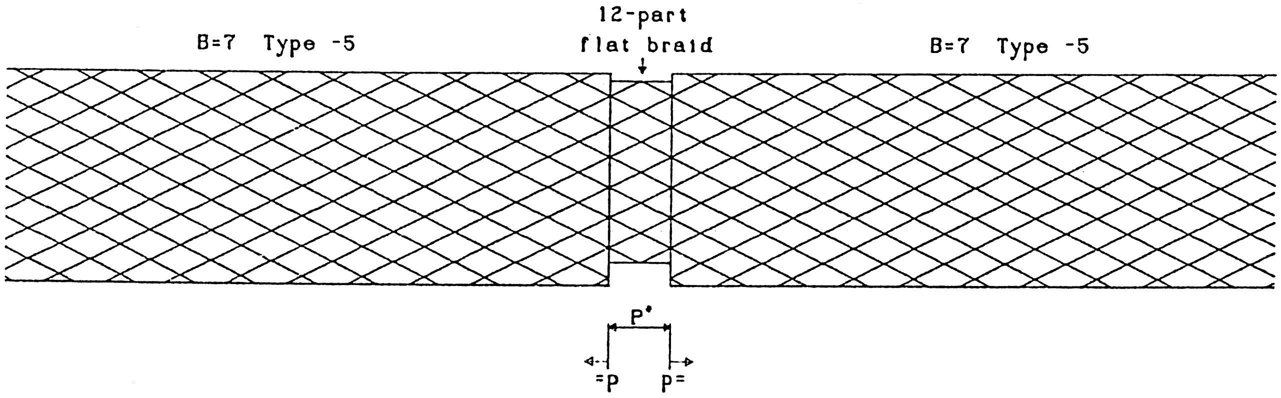
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



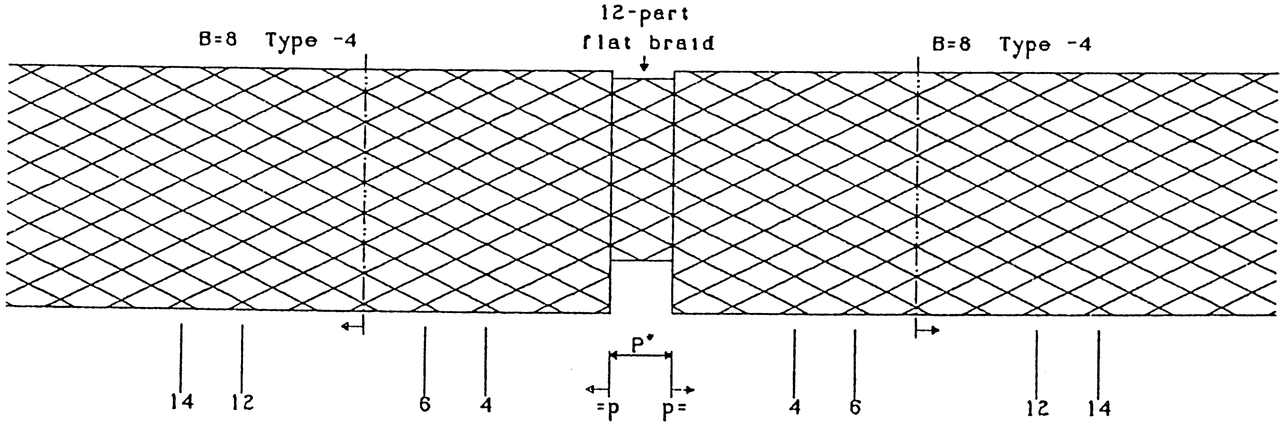
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



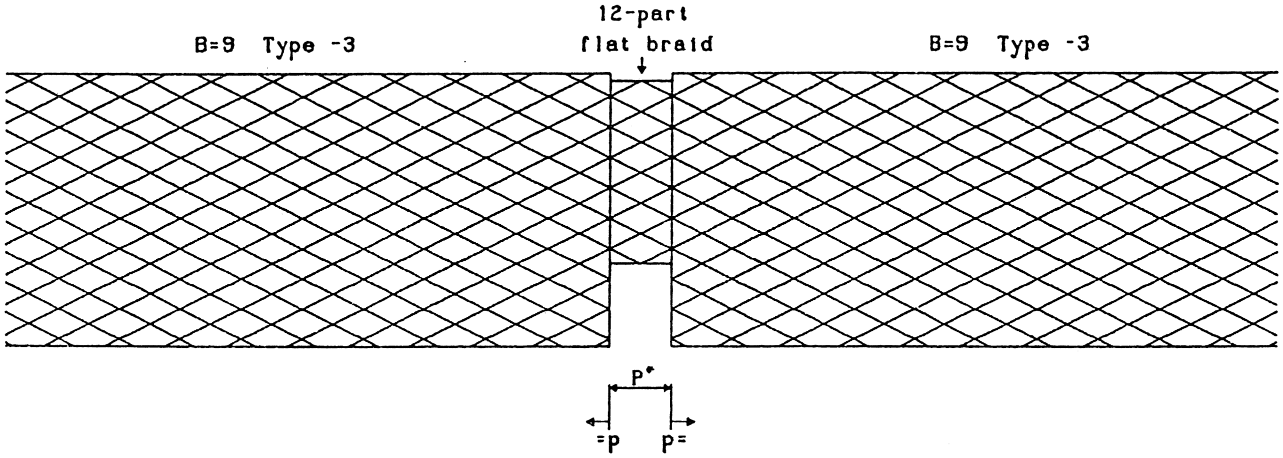
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



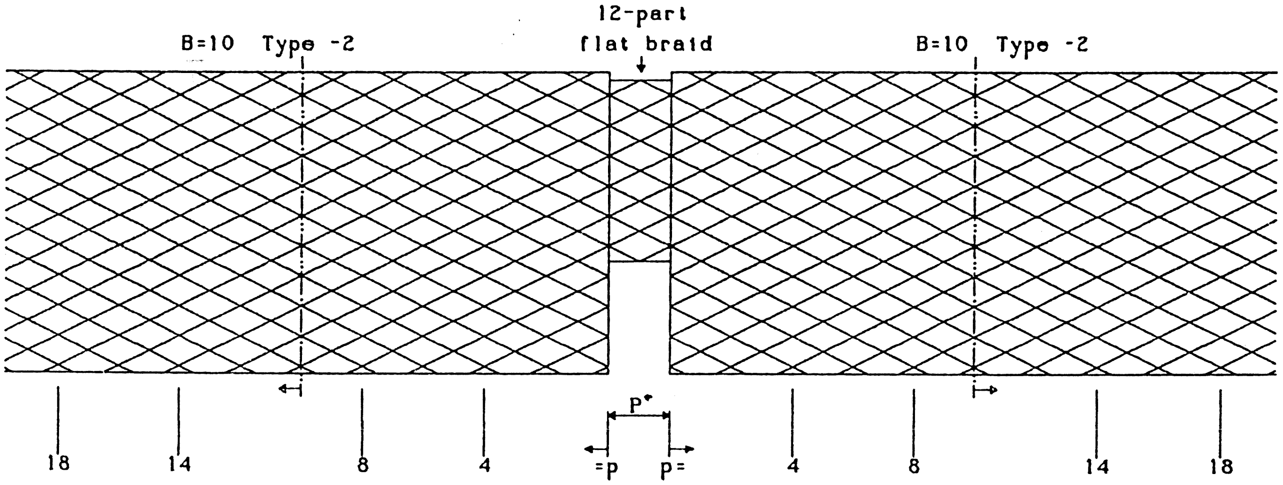
NO 1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



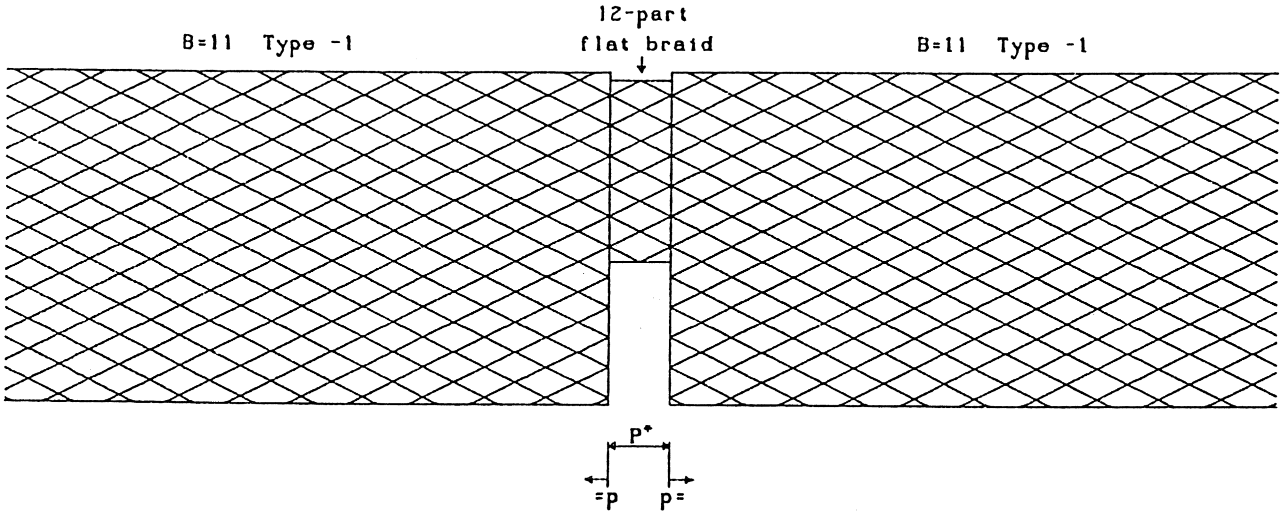
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



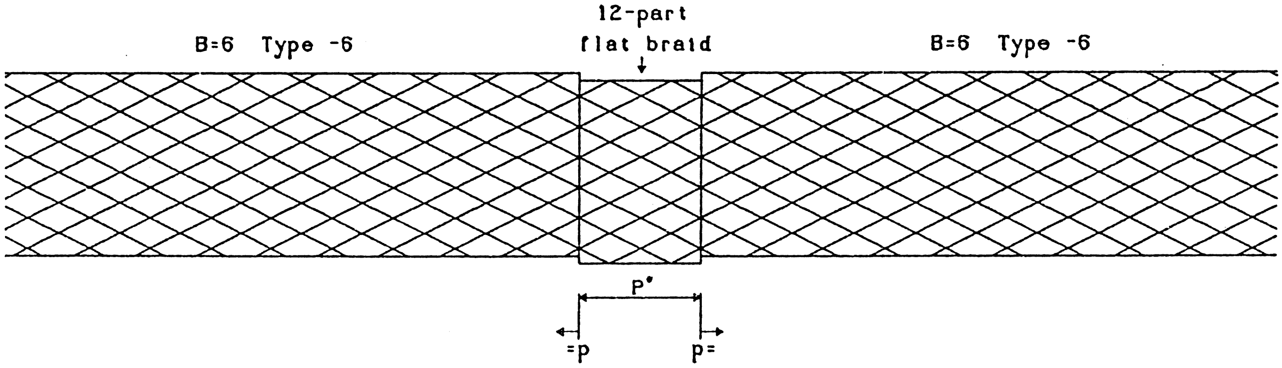
NO 1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



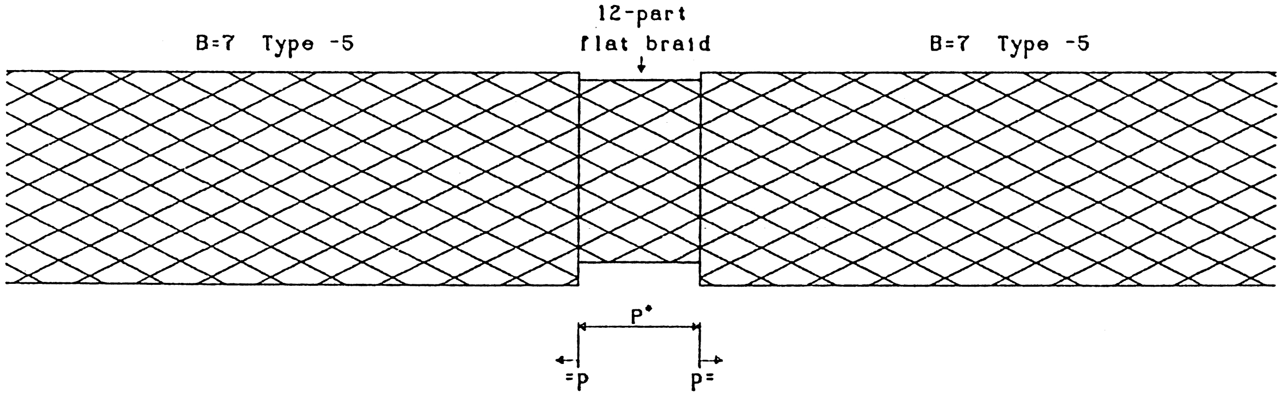
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



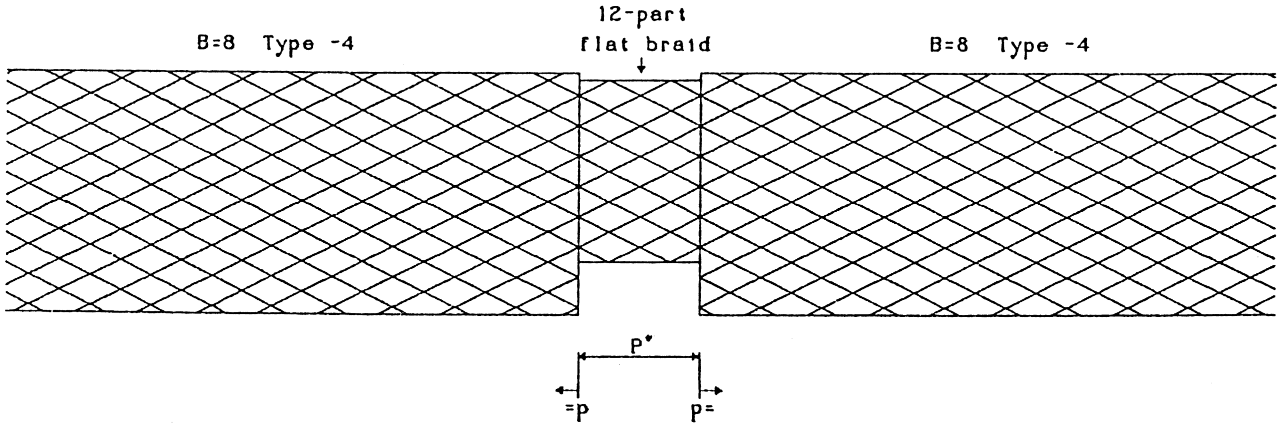
NO 1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



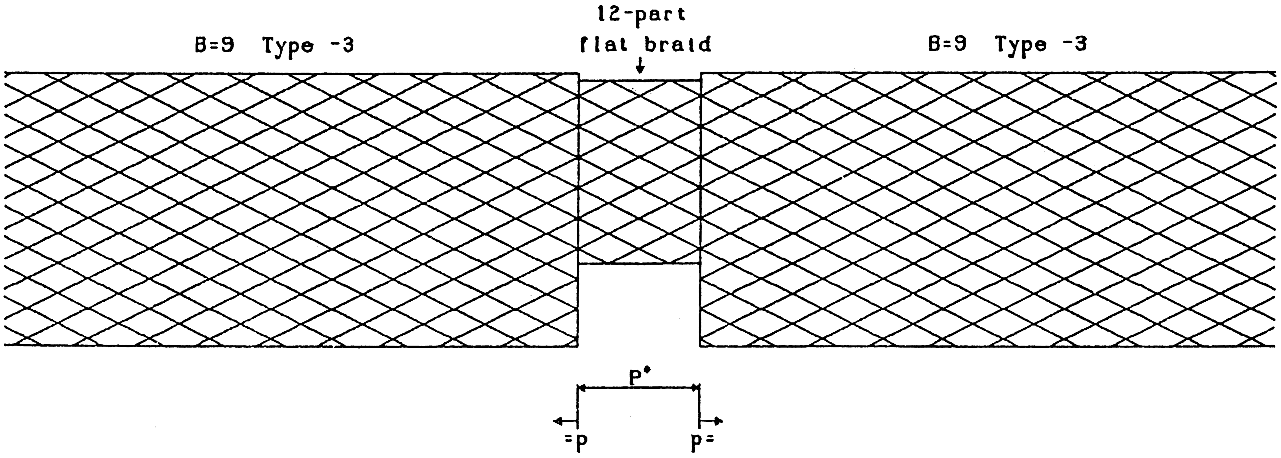
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



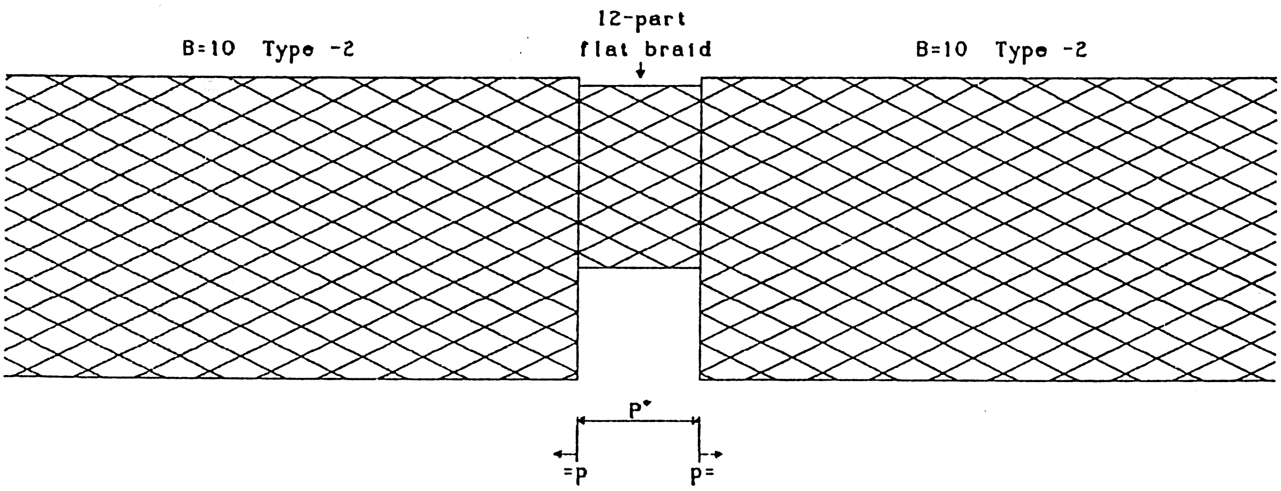
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



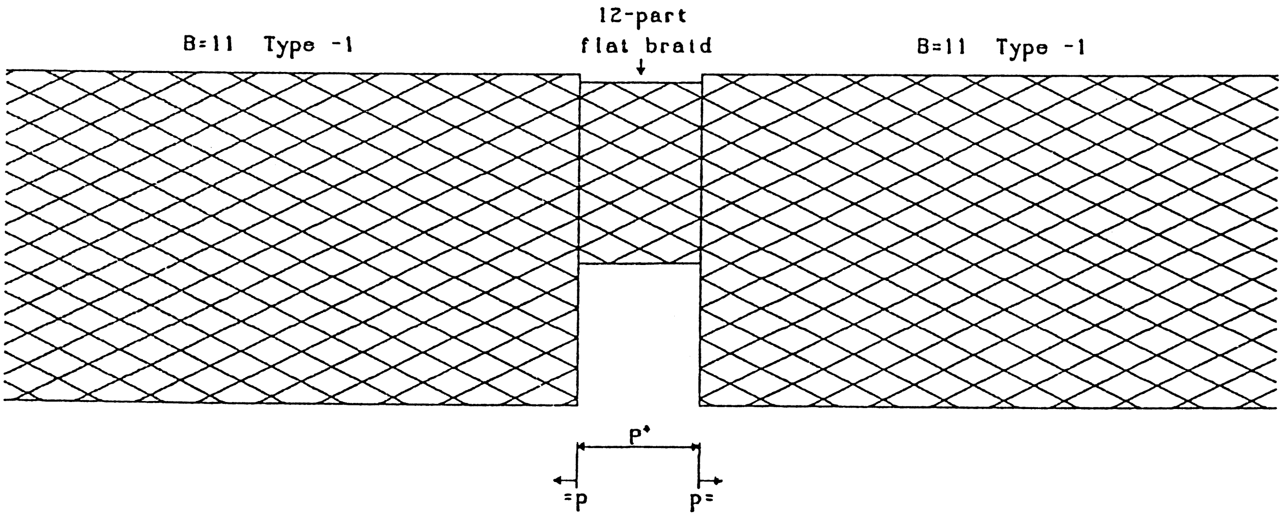
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



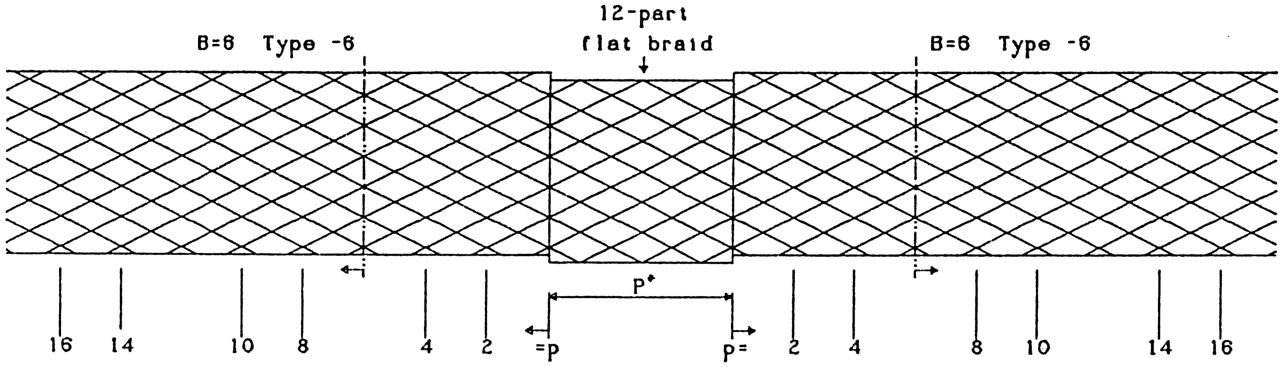
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



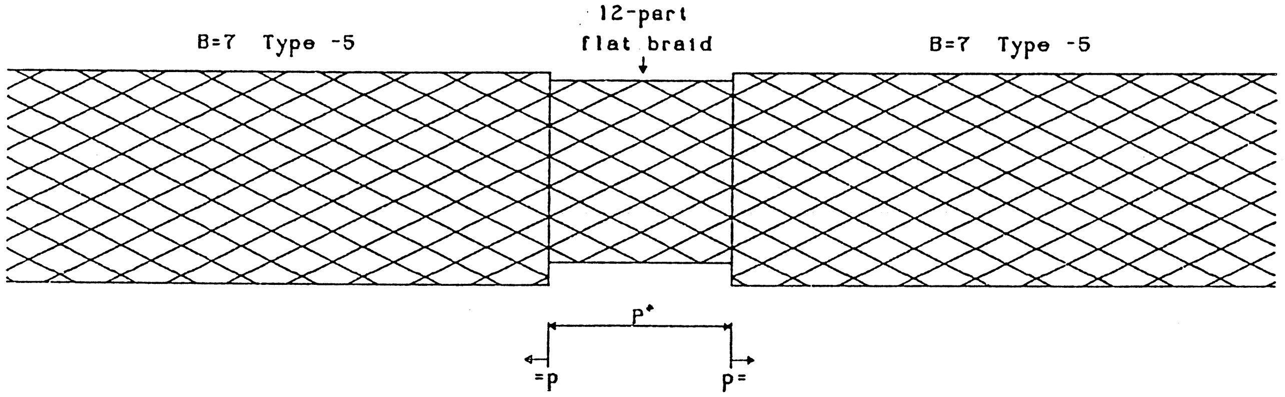
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



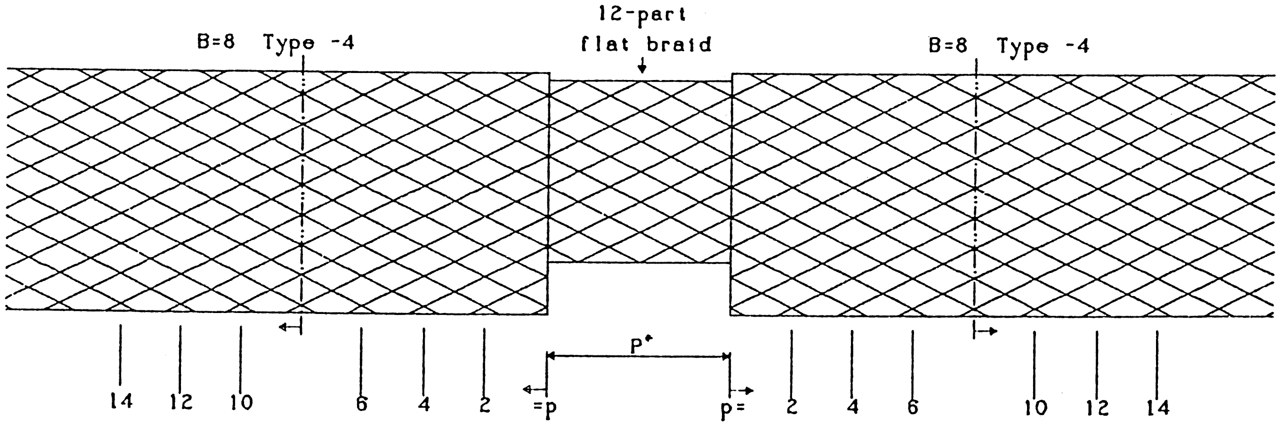
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



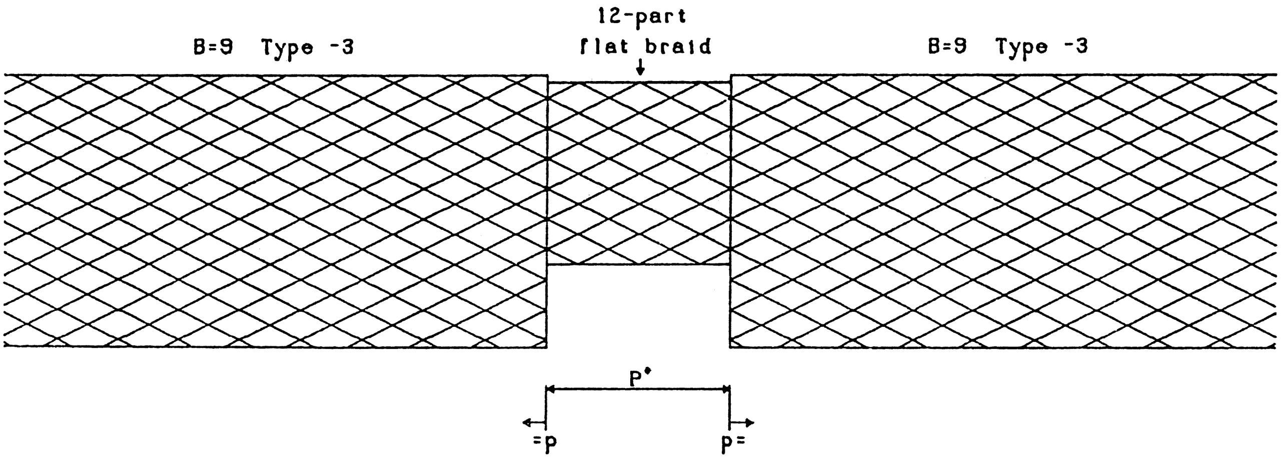
1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



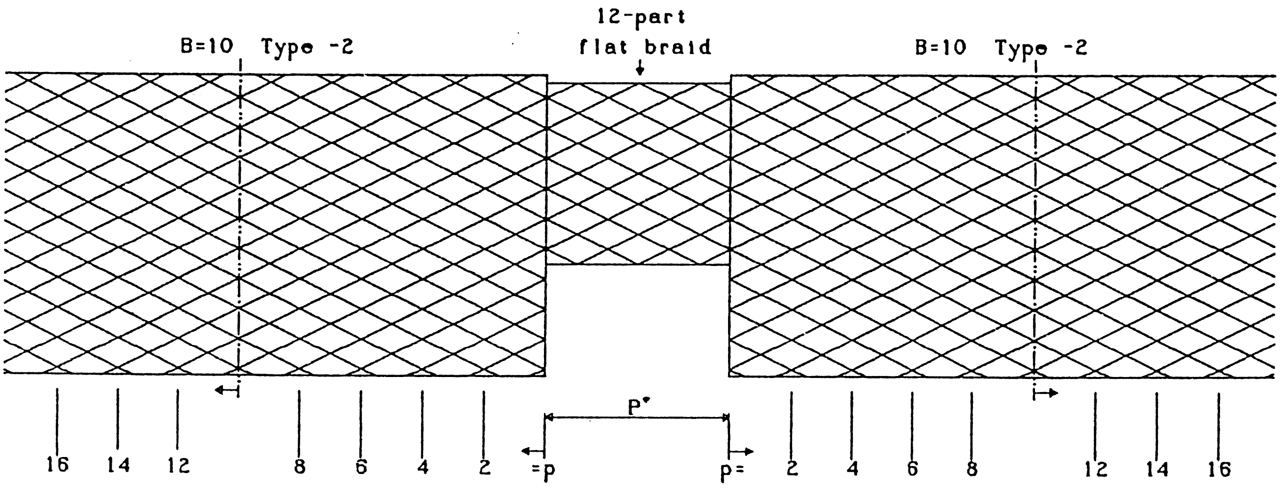
NO 1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



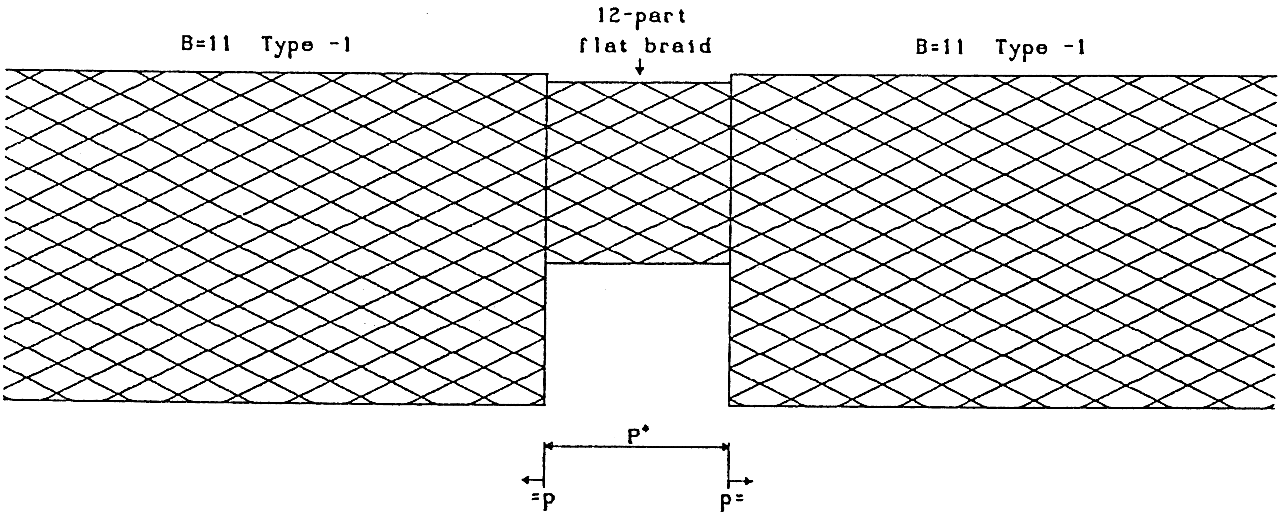
1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



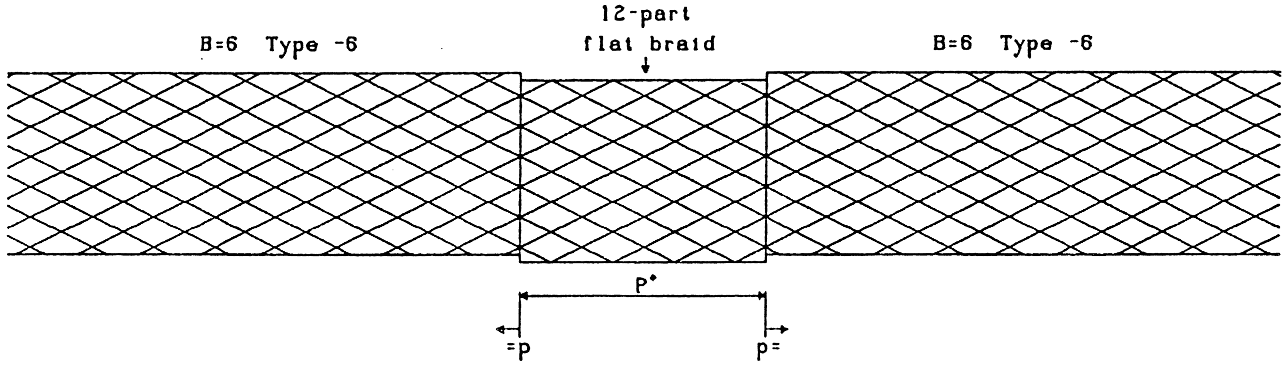
NO 1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



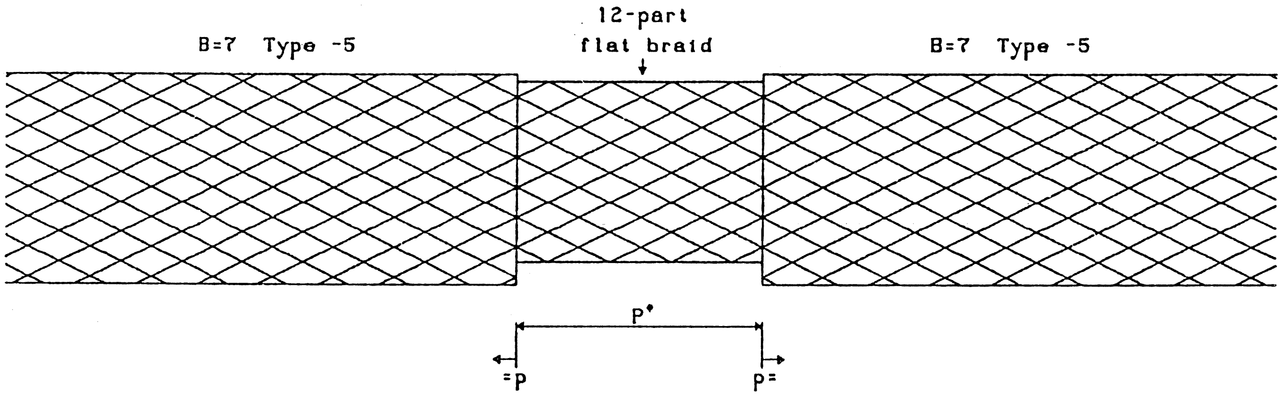
1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



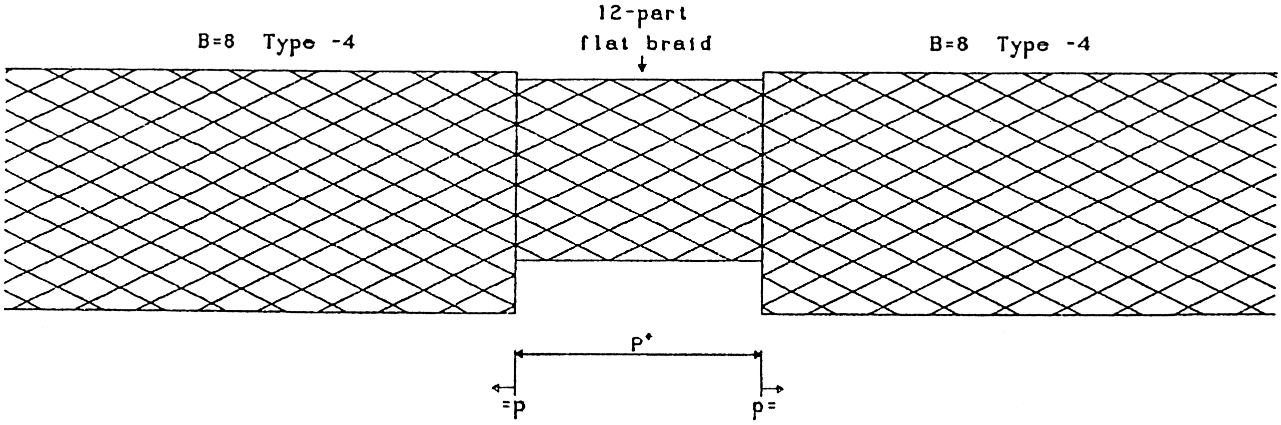
NO 1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



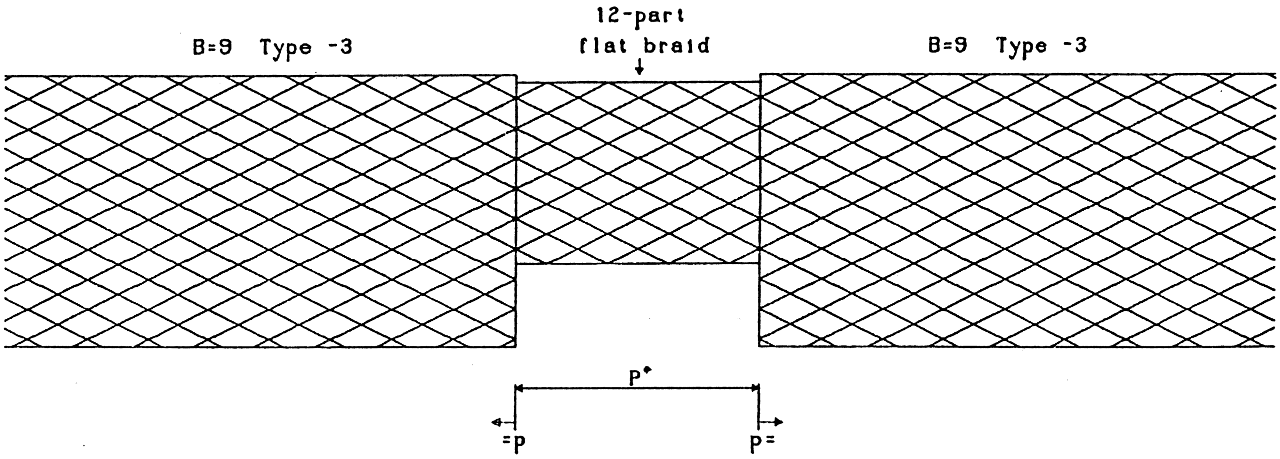
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



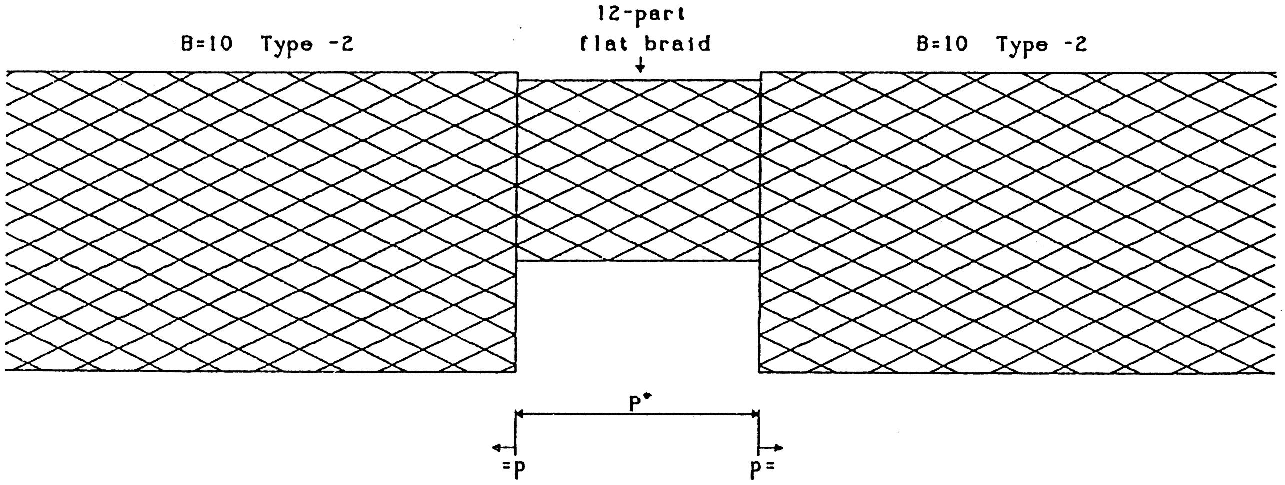
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



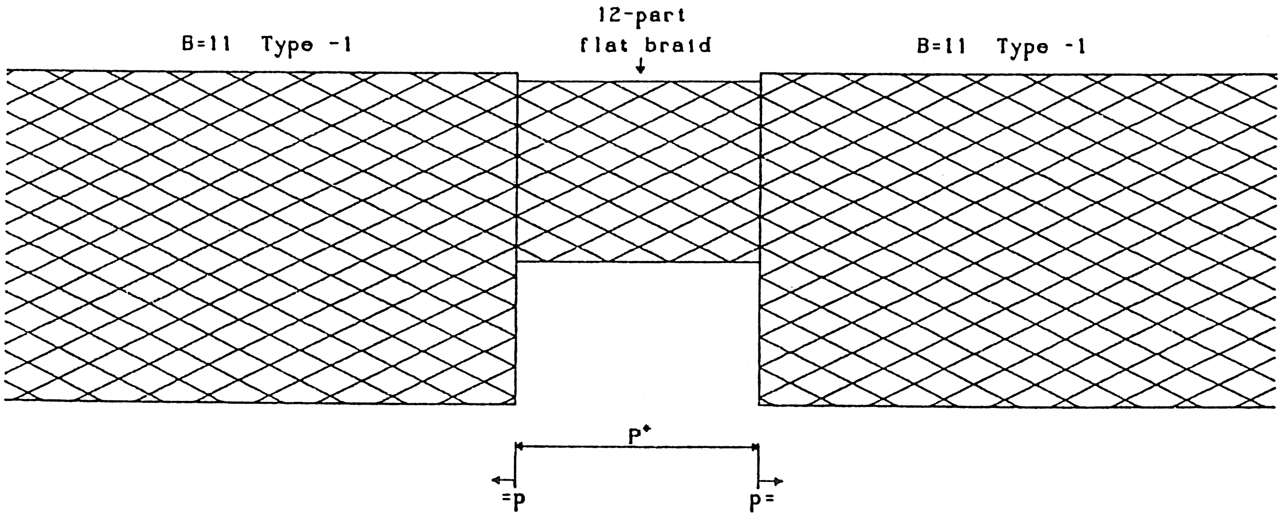
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



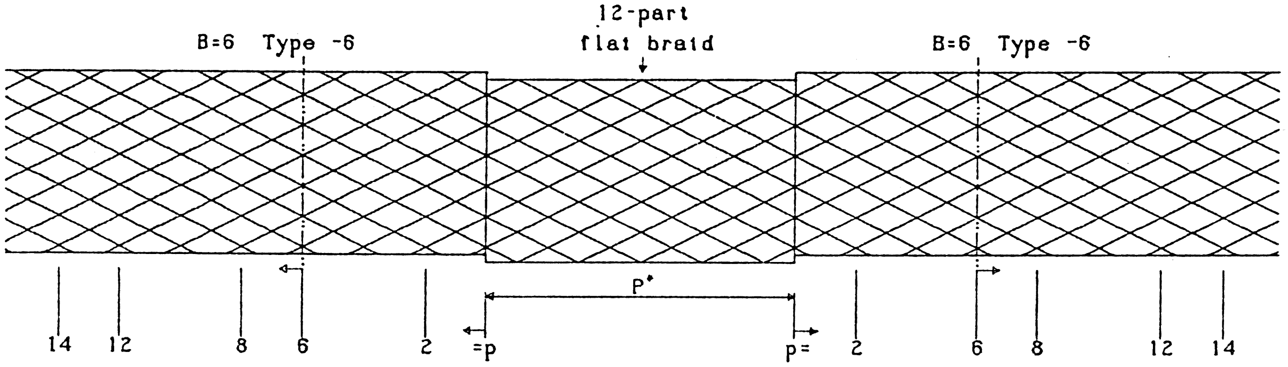
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



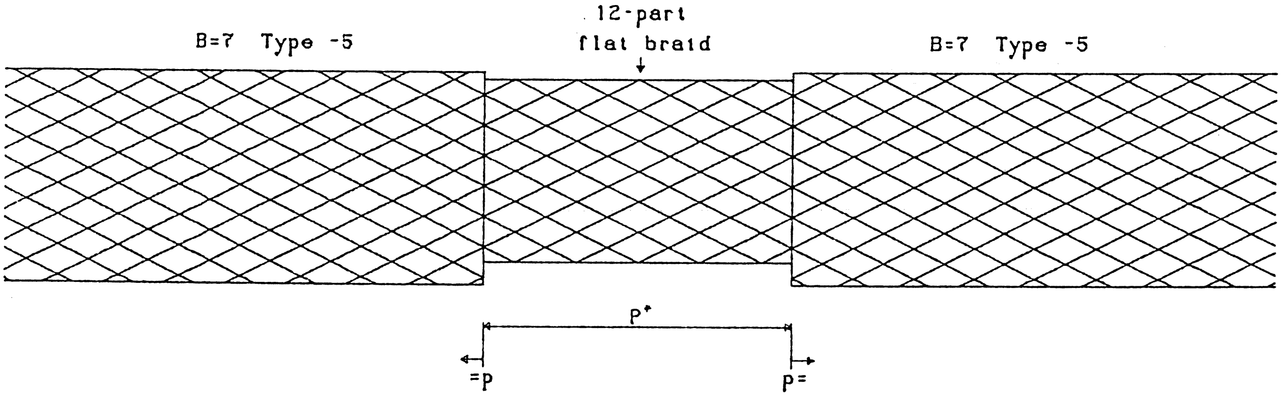
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



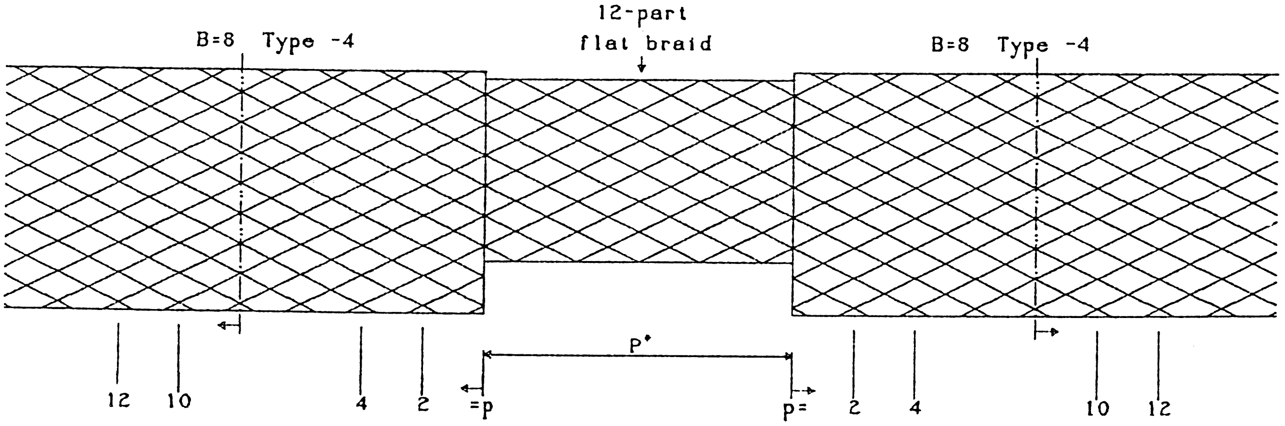
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



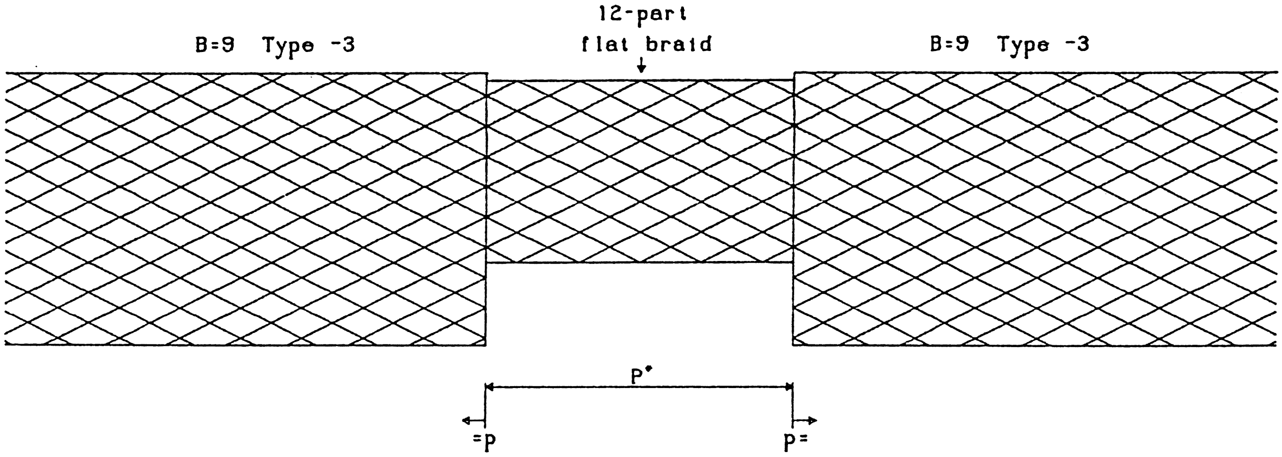
1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



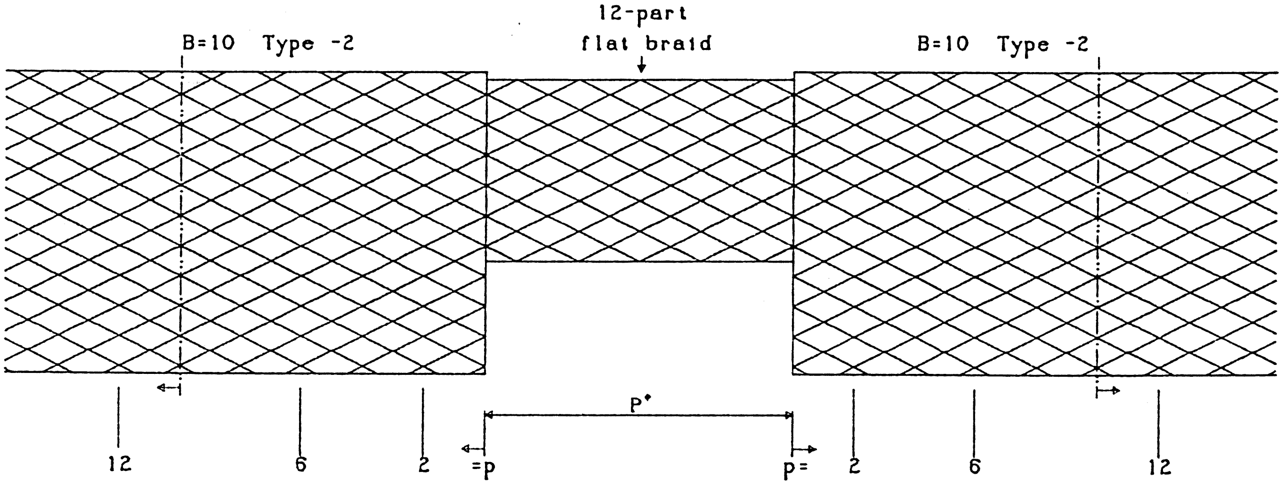
NO 1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



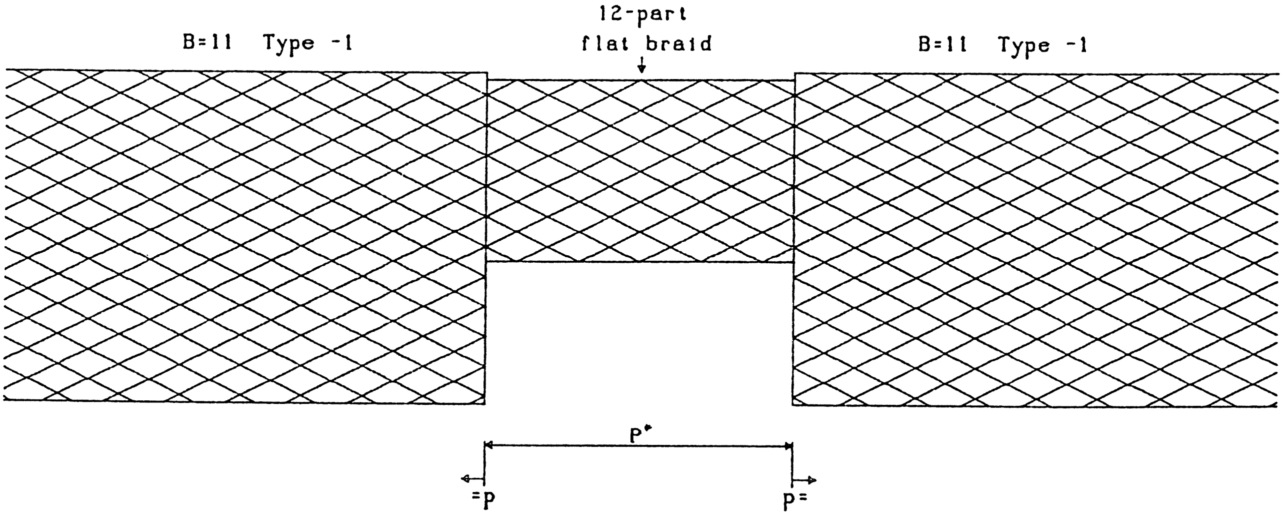
1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



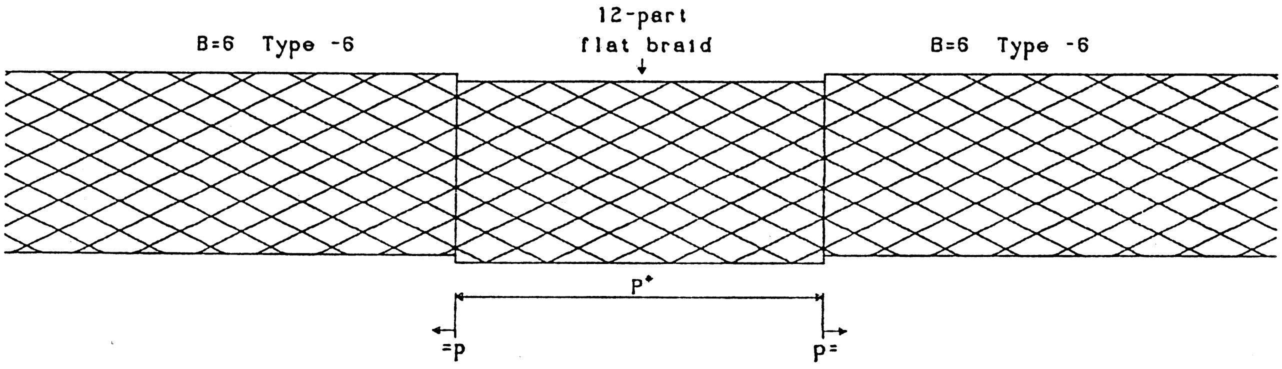
NO 1-string solutions for P*=12n+10 with n=0.1.2.3....



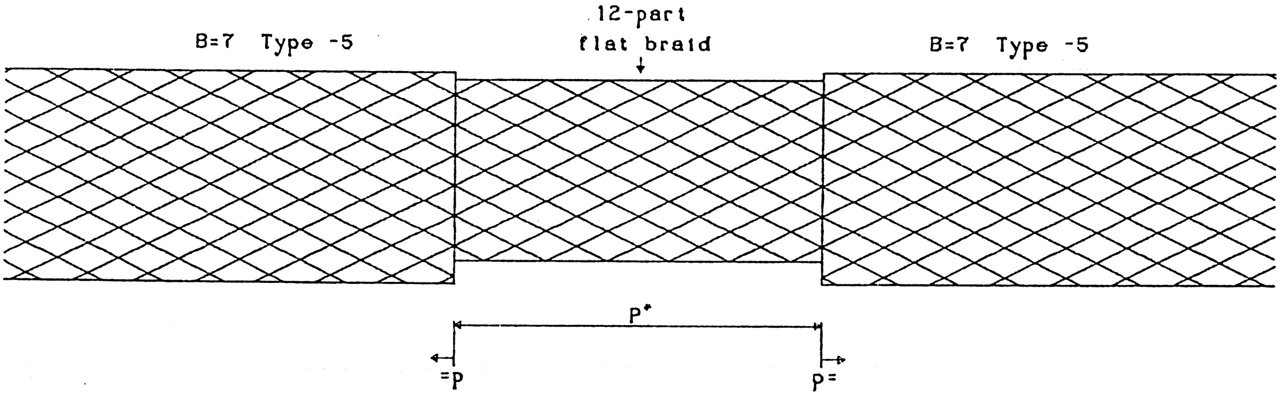
1-string solutions for P*=12n+10 with n=0.1.2.3....



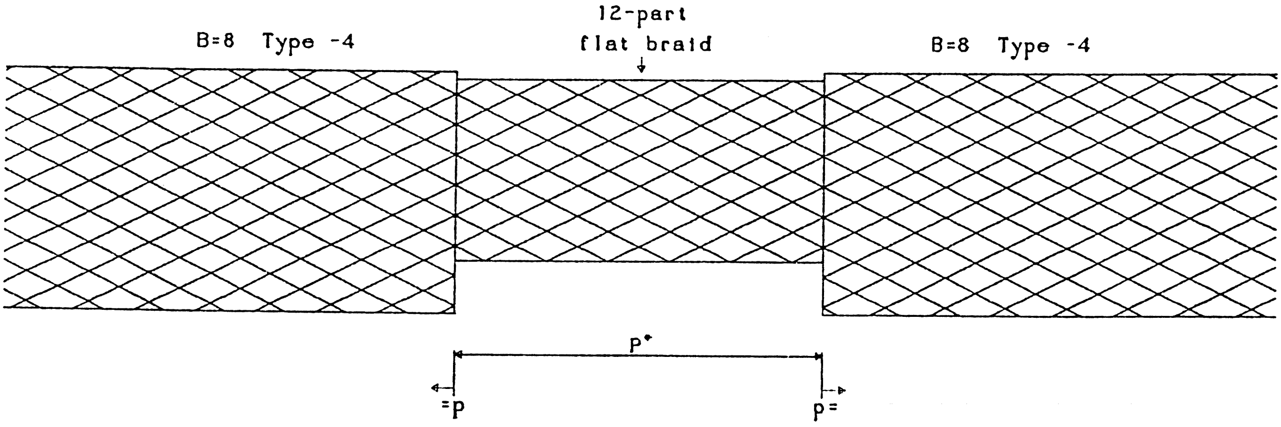
NO 1-string solutions for P*=12n+10 with n=0.1.2.3....



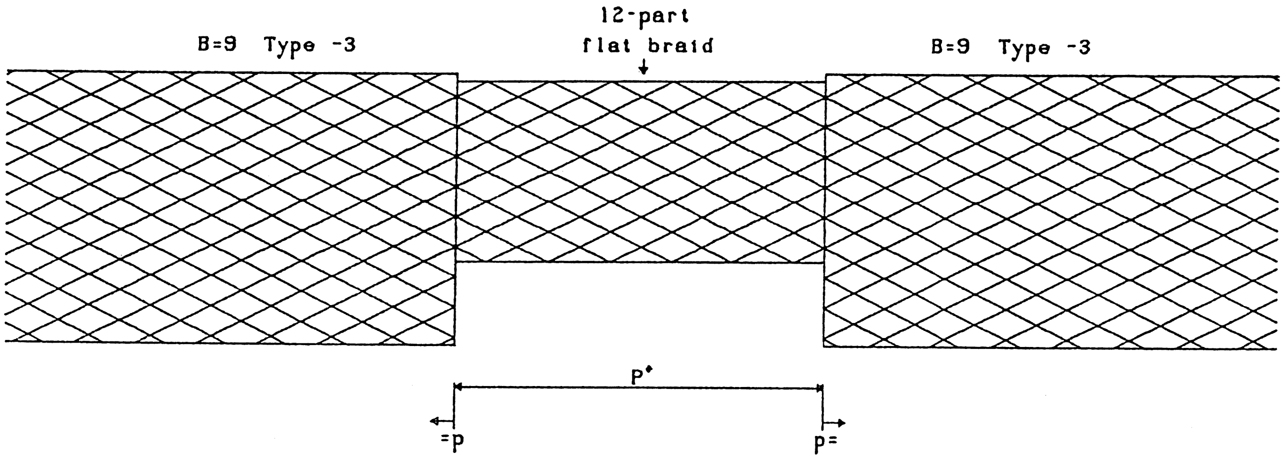
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



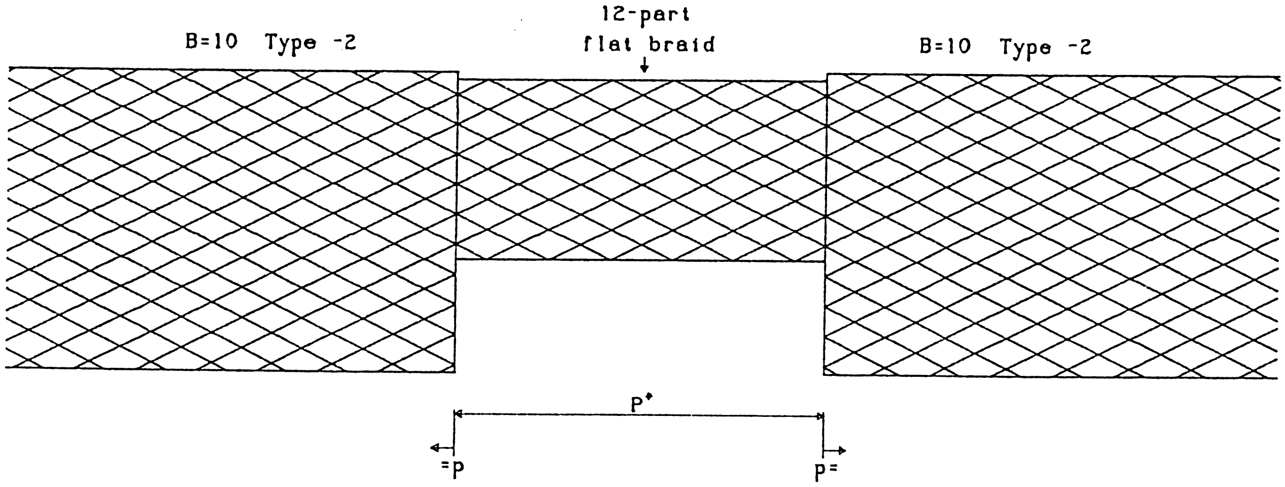
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



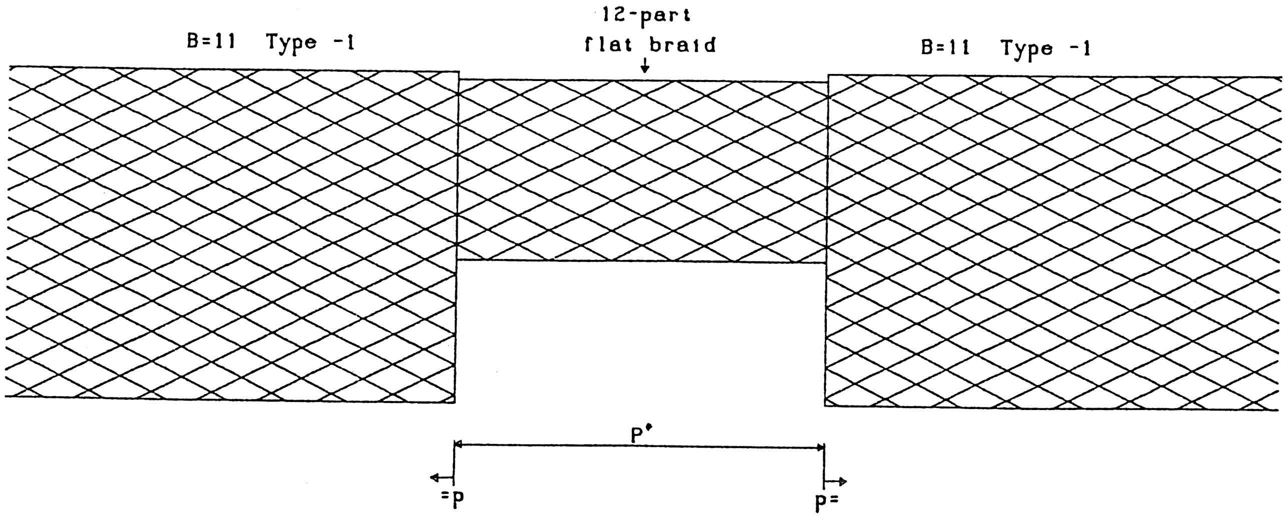
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



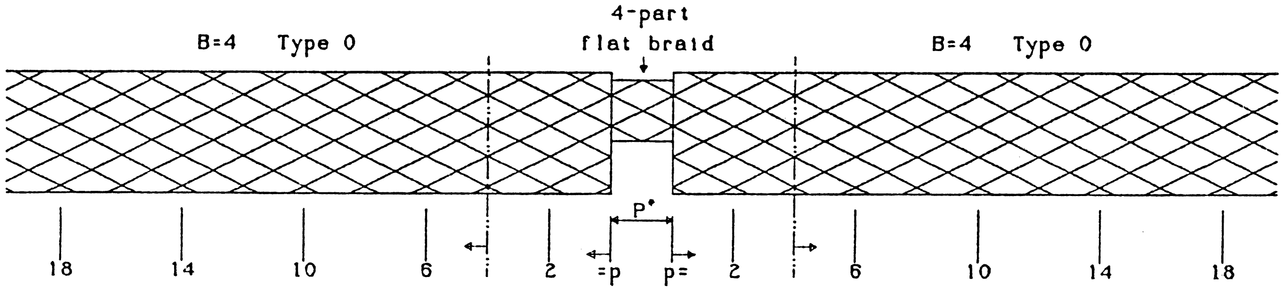
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....

pp. 57 — 94

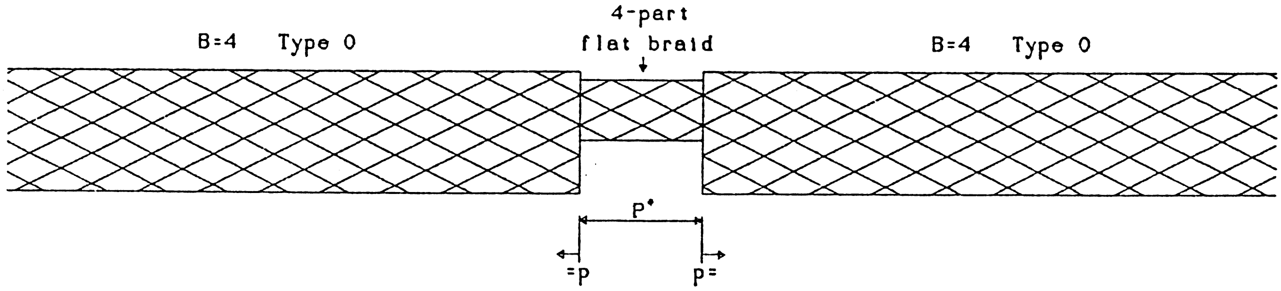
Regular $C_1F^*C_1$ Knots
with
$2x=p_F$

$p_F=4,6,8,10,12.$

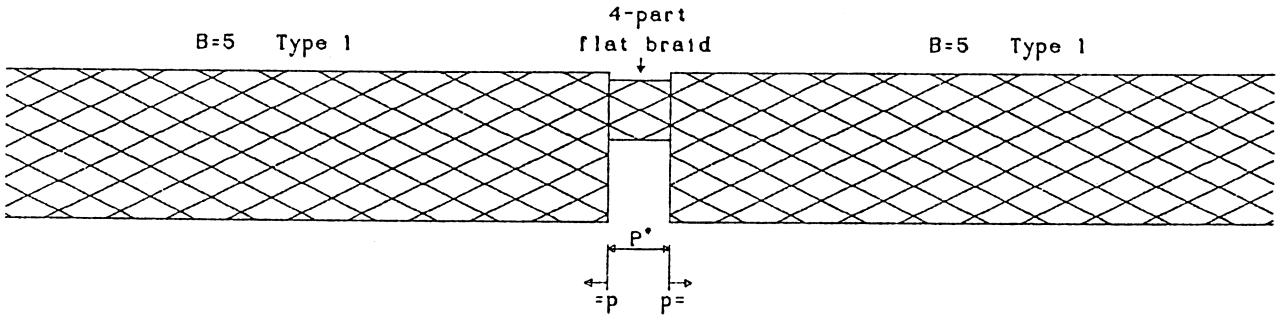
$p_F \leq B \leq p_F + 3$ for $p_F=4.$
$p_F \leq B \leq p_F + 4$ for $6 \leq p_F \leq 12.$



1-string solutions for $P^*=4n+2$ with n=0.1.2.3....



NO 1-string solutions for $P^*=4n+4$ with n=0.1.2.3....



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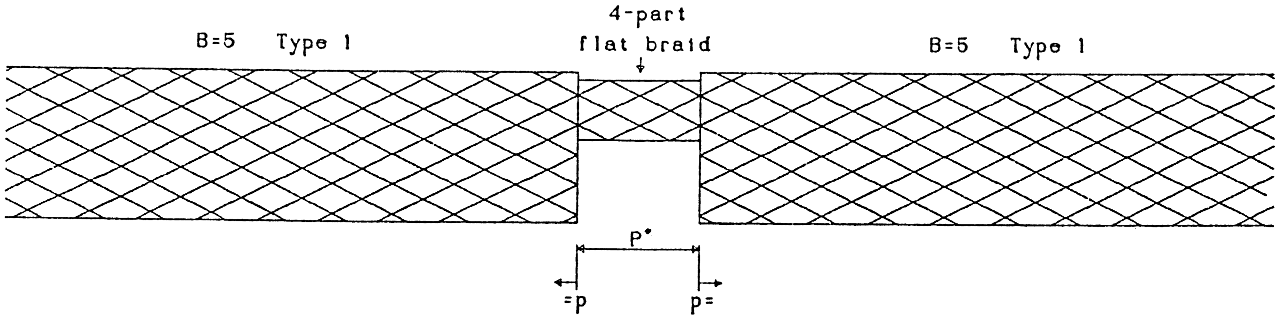
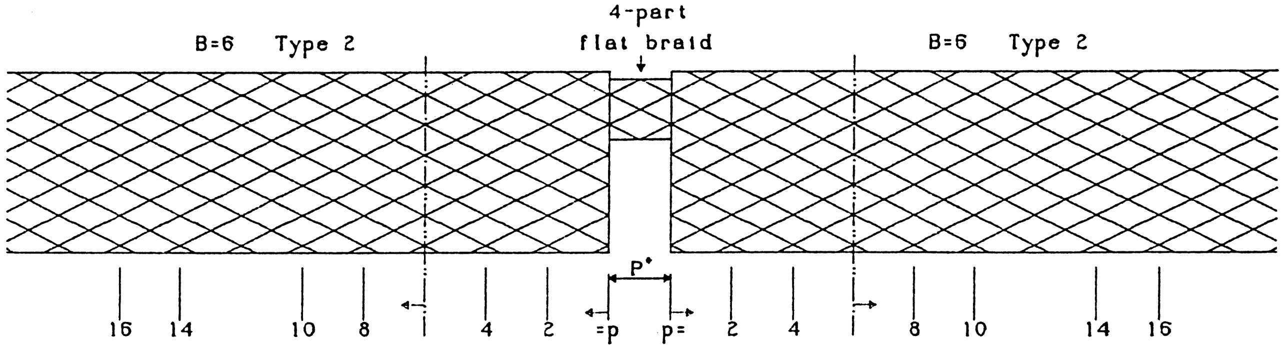
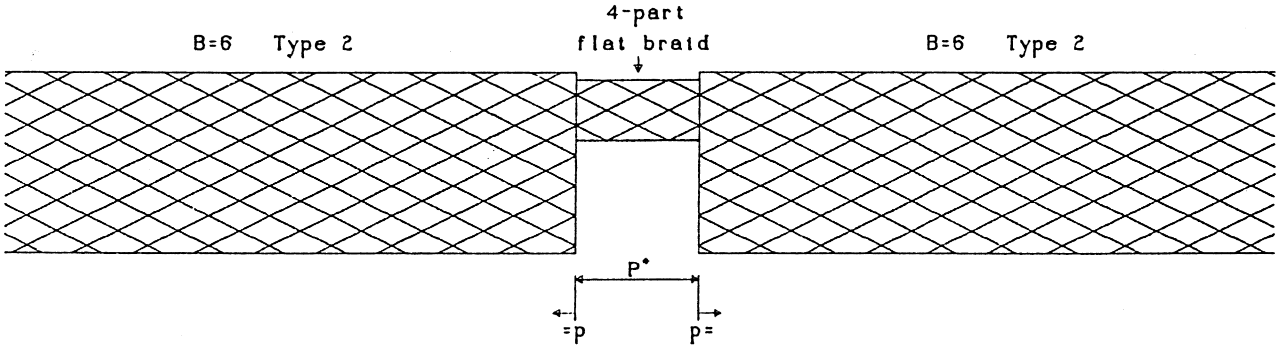


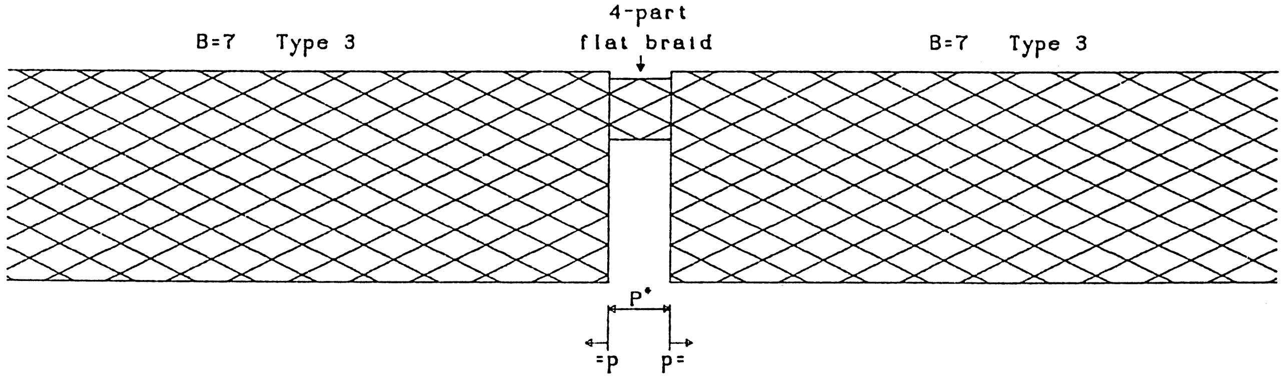
NO 1-string solutions for $P^*=4n+4$ with n=0.1.2.3....



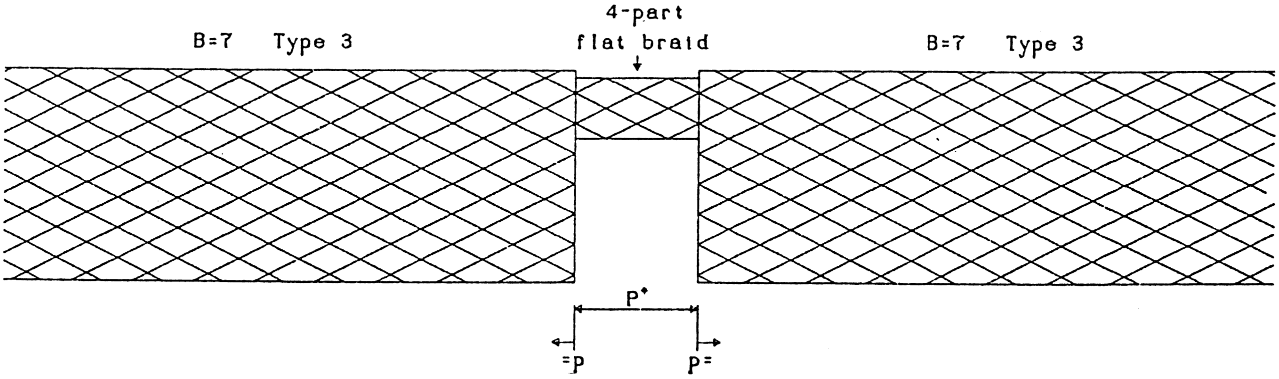
1-string solutions for $P^*=4n+2$ with n=0.1.2.3....



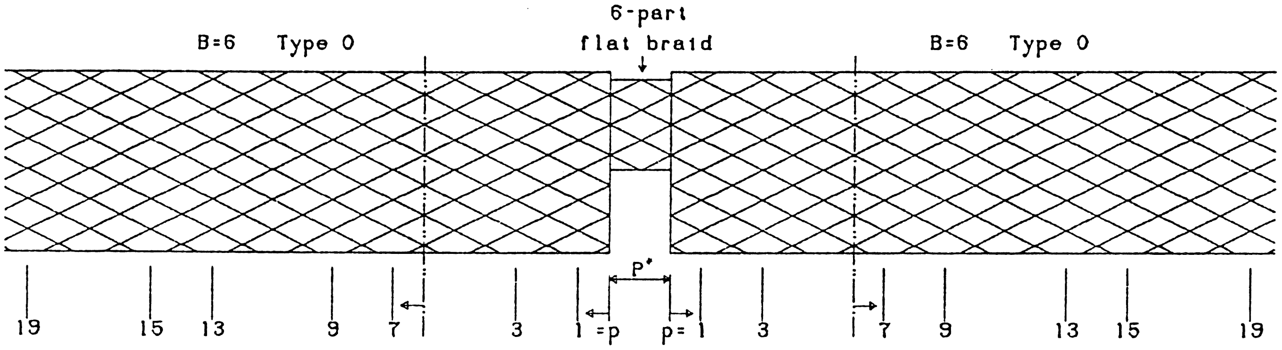
NO 1-string solutions for $P^*=4n+4$ with n=0.1.2.3....



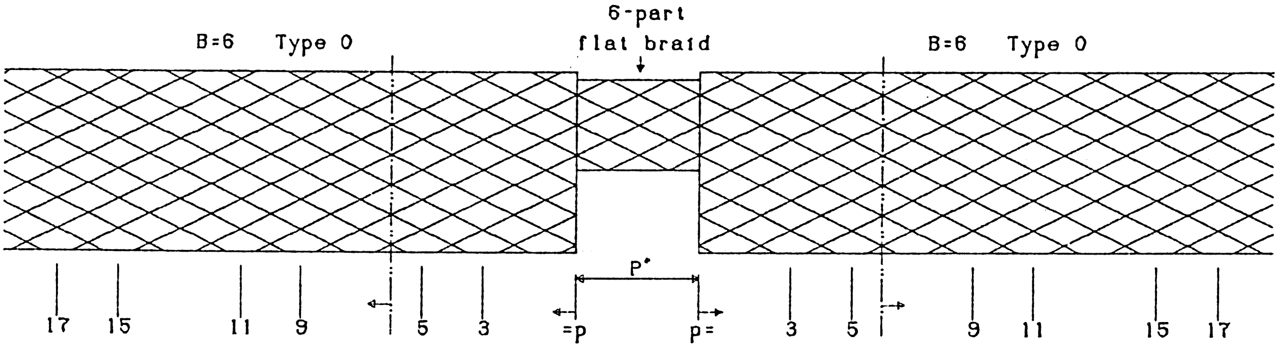
NO 1-string solutions for $P^*=4n+2$ with n=0.1.2.3....



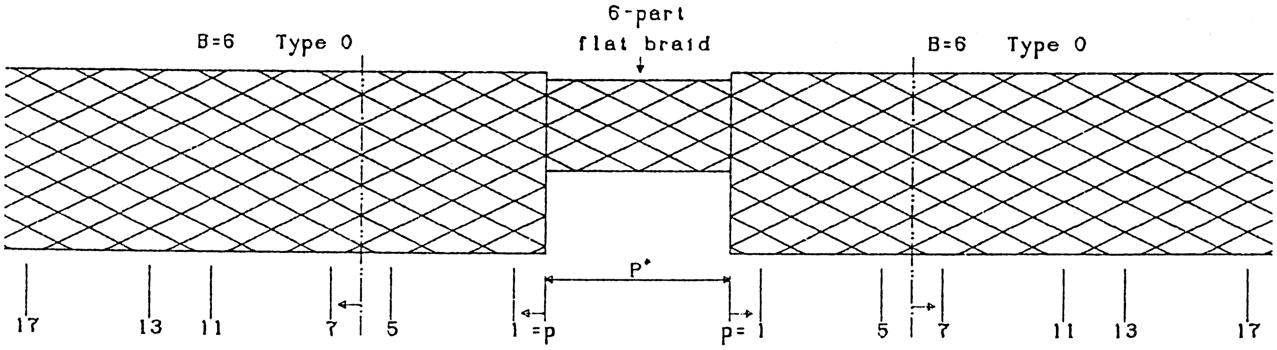
NO 1-string solutions for $P^*=4n+4$ with n=0.1.2.3....



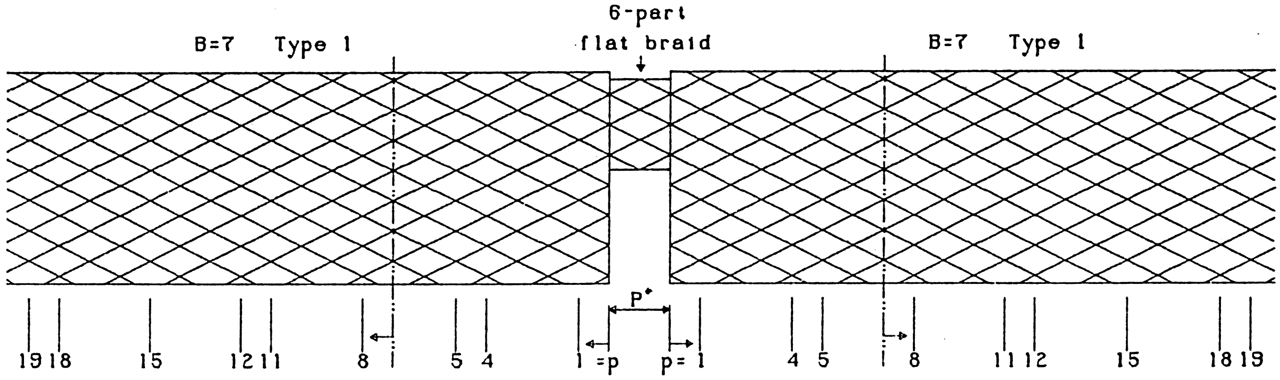
1-string solutions for $P^{*}=6n+2$ with n=0.1.2.3....



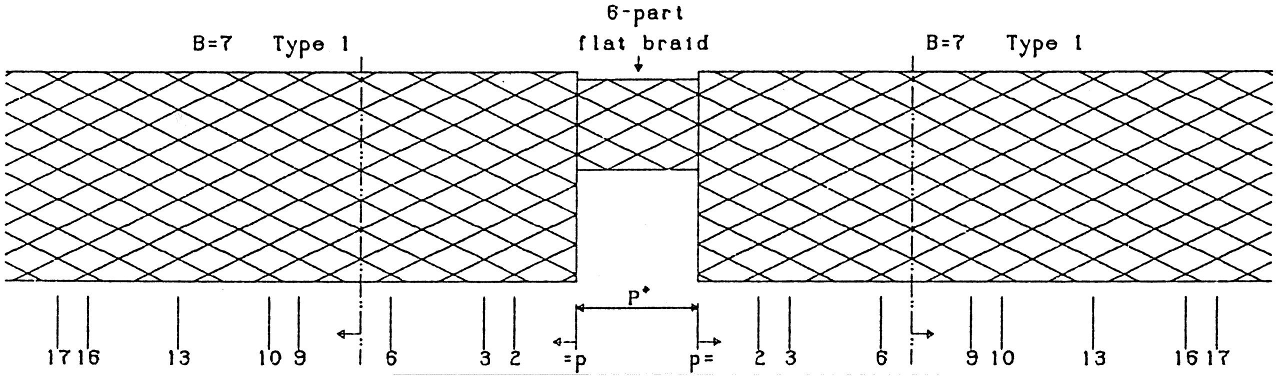
1-string solutions for $P^{*}=6n+4$ with n=0.1.2.3....



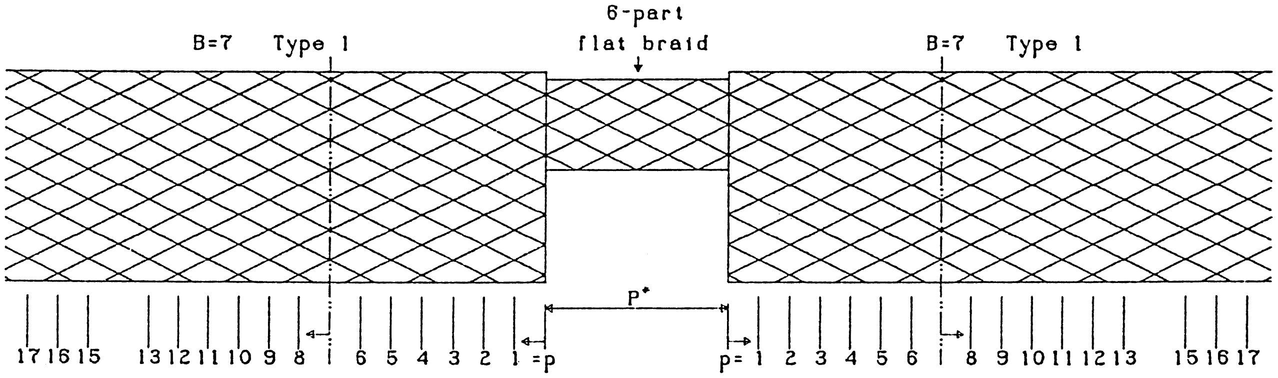
1-string solutions for $P^{*}=6n+6$ with n=0.1.2.3....



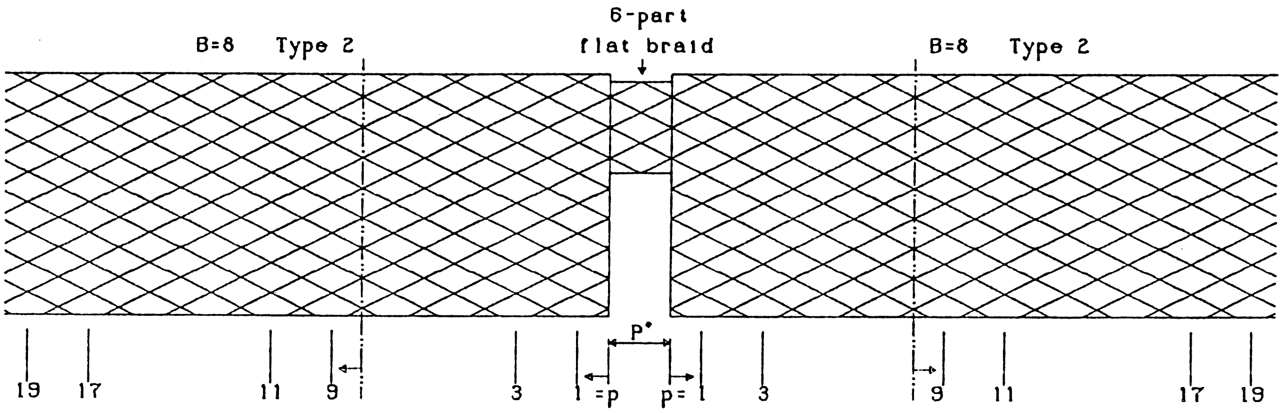
1-string solutions for $P^*=6n+2$ with n=0.1.2.3....



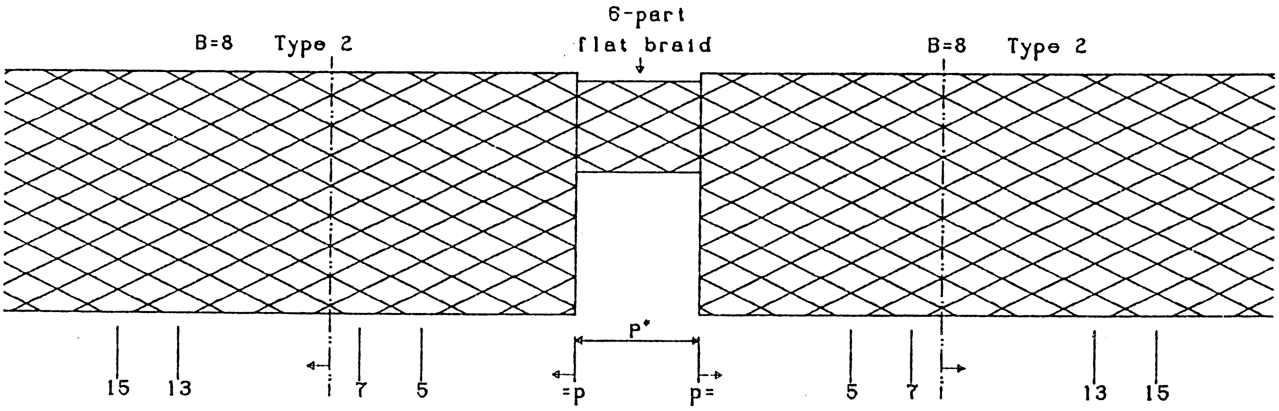
1-string solutions for $P^*=6n+4$ with n=0.1.2.3....


6-part
flat braid
B=7 Type 1
B=7 Type 1
P*
17 16 15 13 12 11 10 9 8 i 6 5 4 3 2 1 =p
p= 1 2 3 4 5 6 i 8 9 10 11 12 13 15 16 17

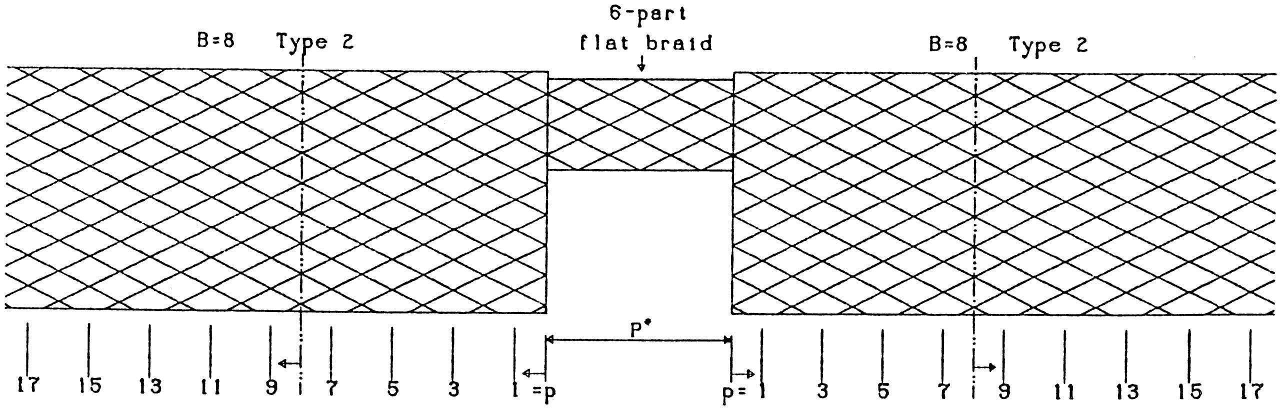
1-string solutions for $P^*=6n+6$ with n=0.1.2.3....



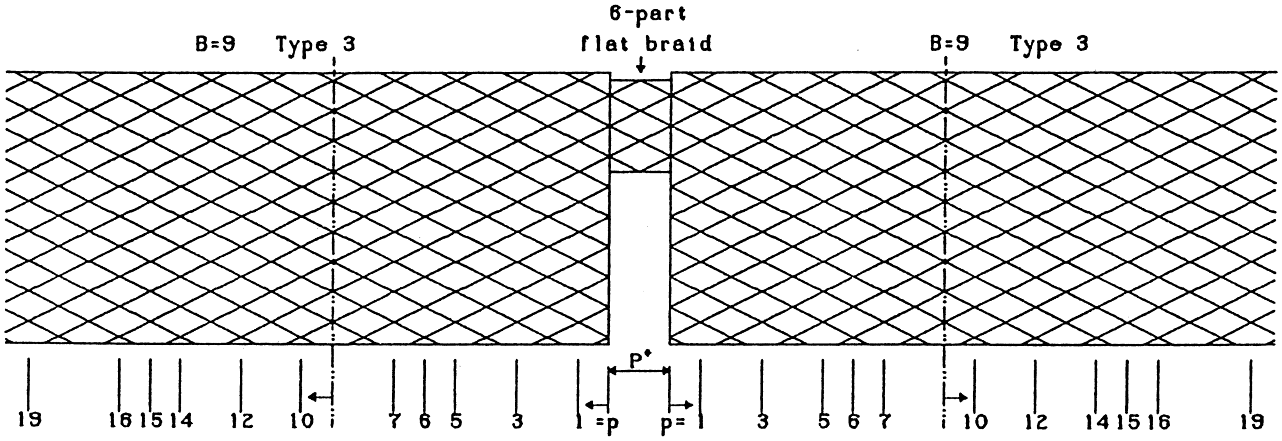
1-string solutions for $P^*=6n+2$ with $n=0.1.2.3....$



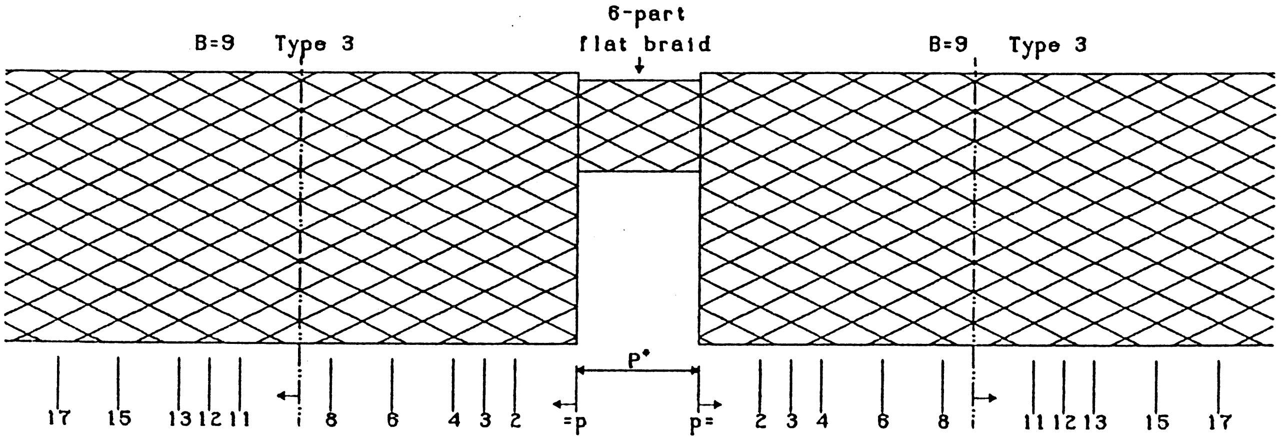
1-string solutions for $P^*=6n+4$ with $n=0.1.2.3....$



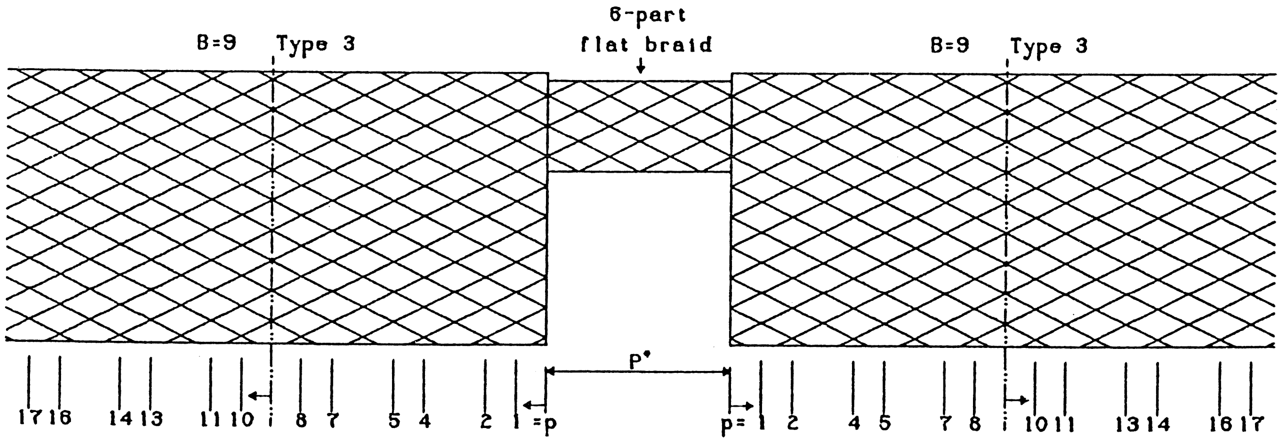
1-string solutions for $P^*=6n+6$ with $n=0.1.2.3....$


6-part
flat braid
B=9 Type 3
B=9 Type 3
P*
19 16 15 14 12 10 7 6 5 3 1 =p
p= 1 3 5 6 7 10 12 14 15 16 19

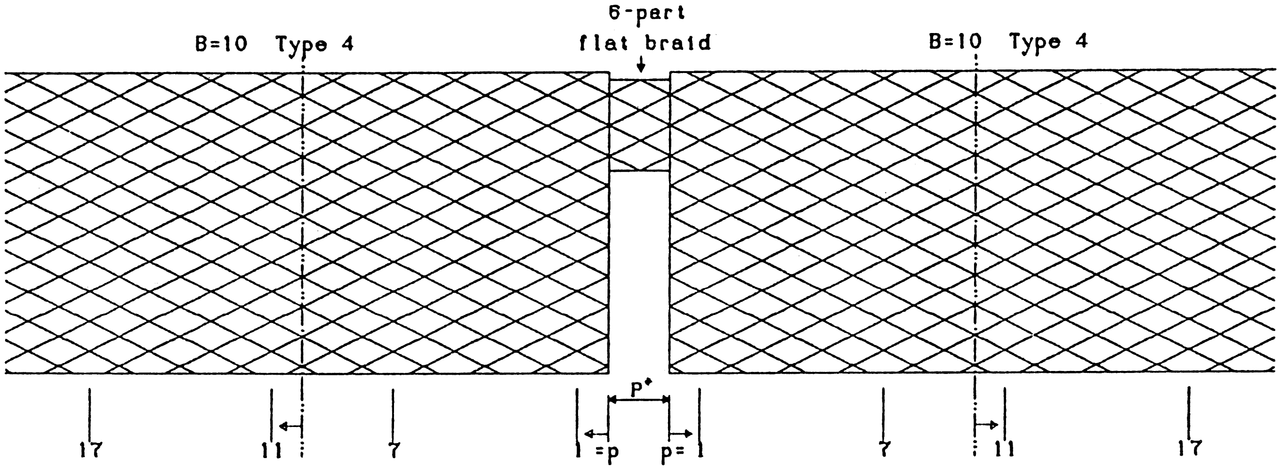
1-string solutions for $P^*=6n+2$ with n=0.1.2.3....



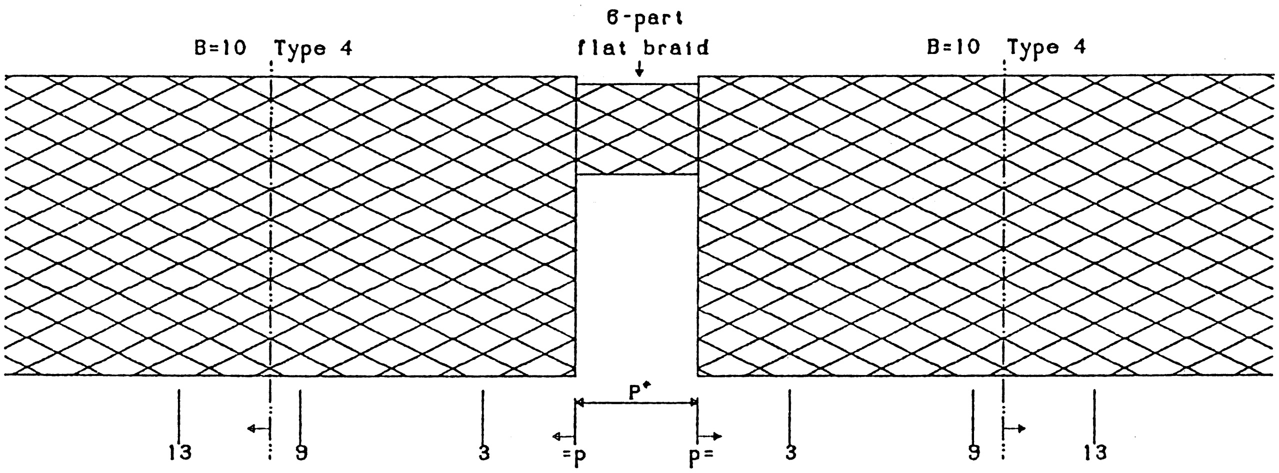
1-string solutions for $P^*=6n+4$ with n=0.1.2.3....


6-part
flat braid
B=9 Type 3
B=9 Type 3
P*
17 16 14 13 11 10 8 7 5 4 2 1 =p
p= 1 2 4 5 7 8 10 11 13 14 16 17

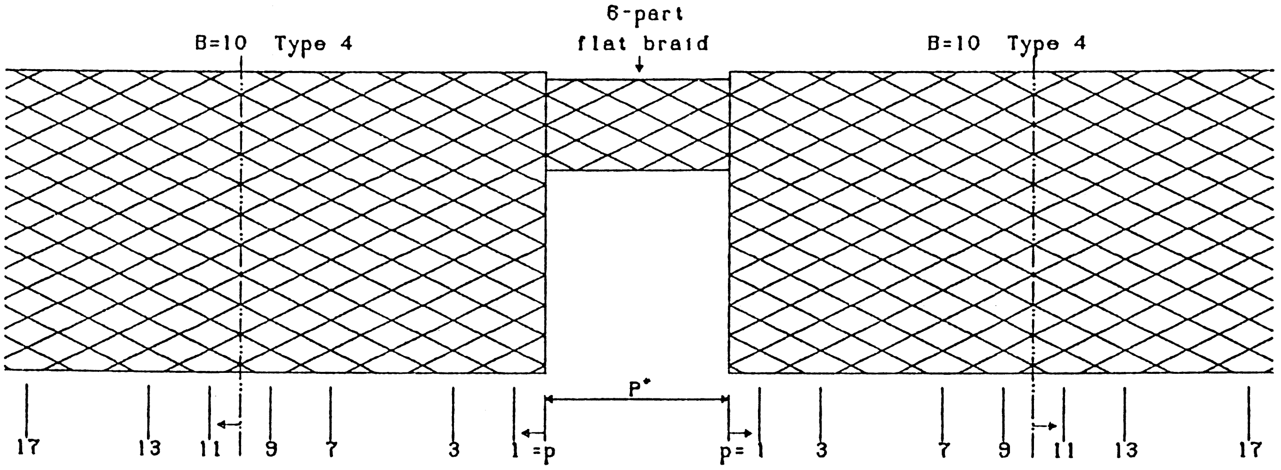
1-string solutions for $P^*=6n+6$ with n=0.1.2.3....



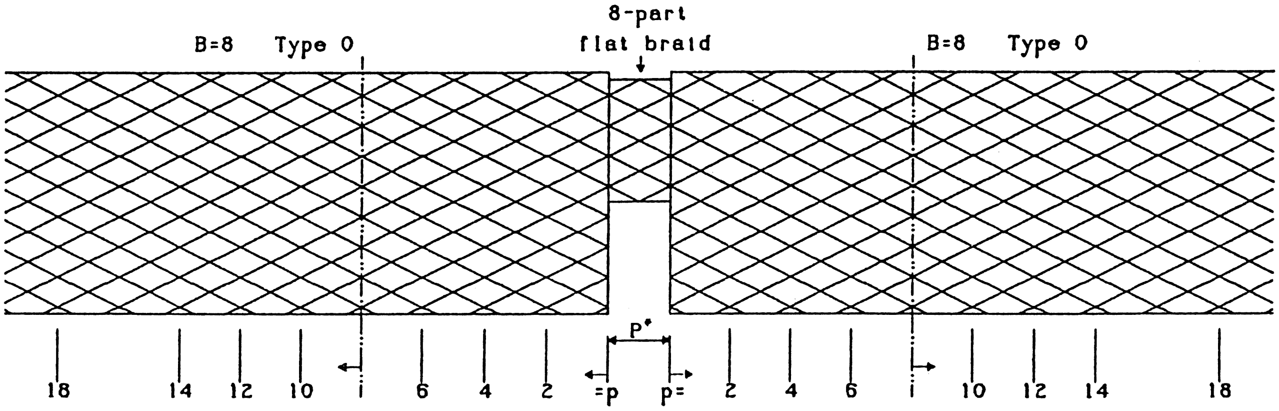
1-string solutions for $P^*=6n+2$ with n=0.1.2.3....



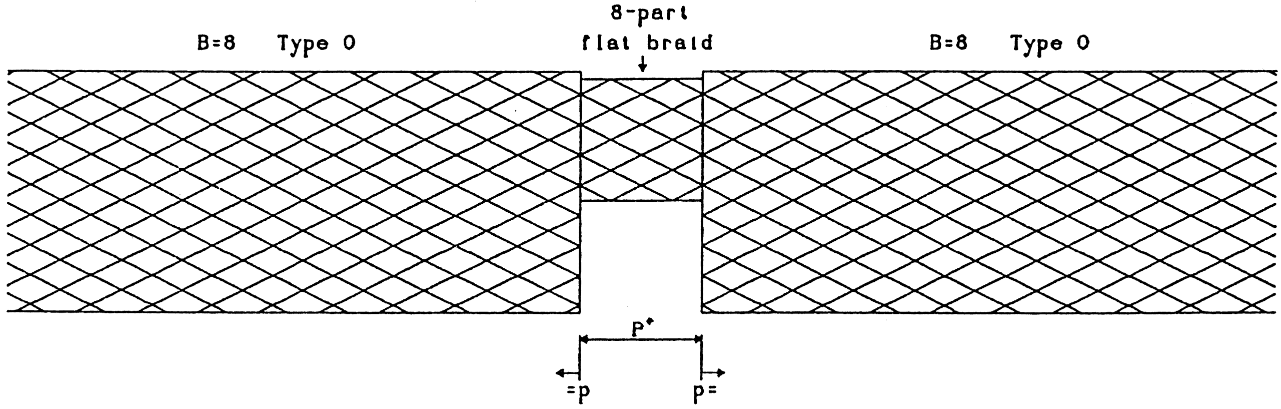
1-string solutions for $P^*=6n+4$ with n=0.1.2.3....



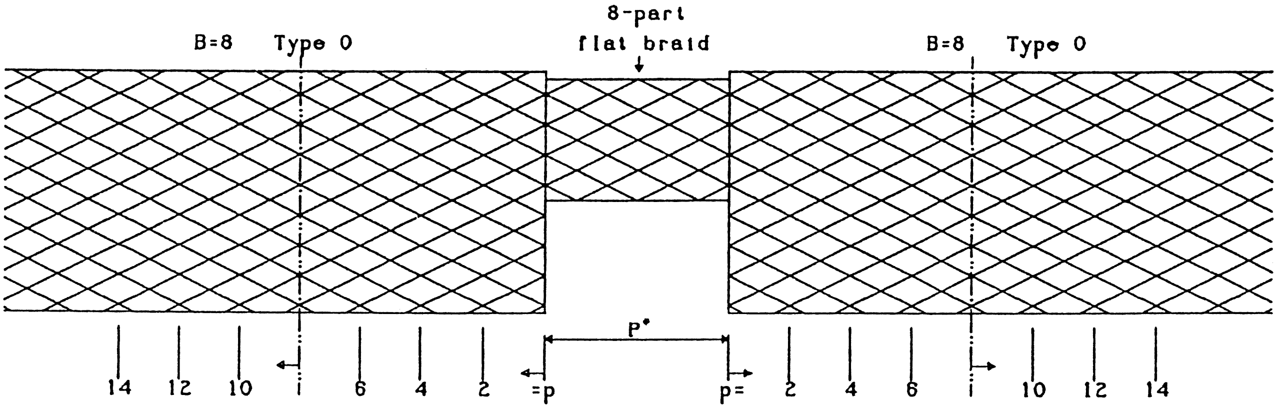
1-string solutions for $P^*=6n+6$ with n=0.1.2.3....



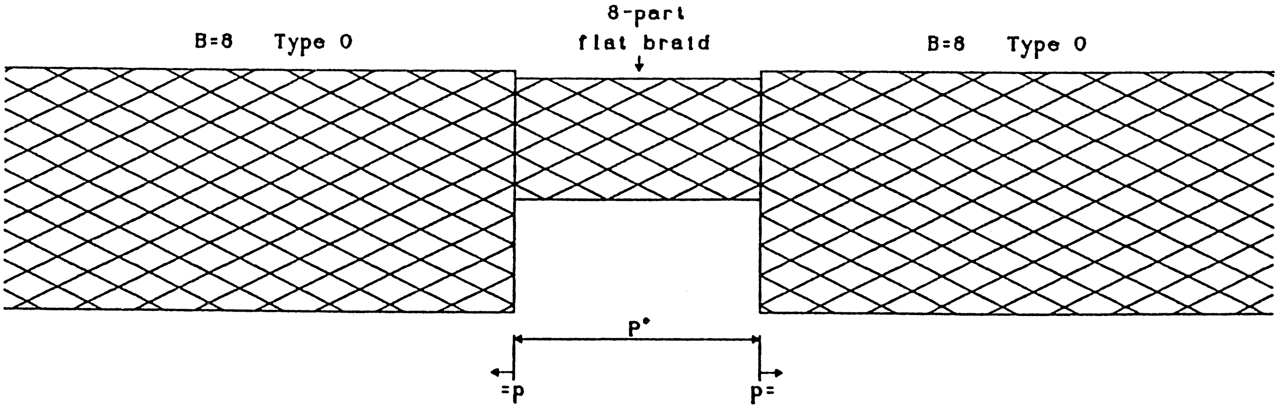
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



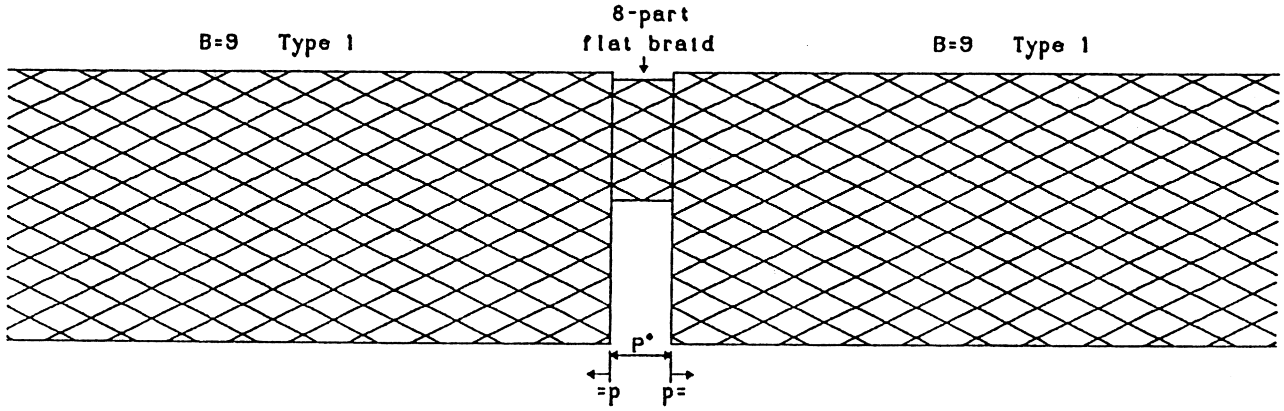
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



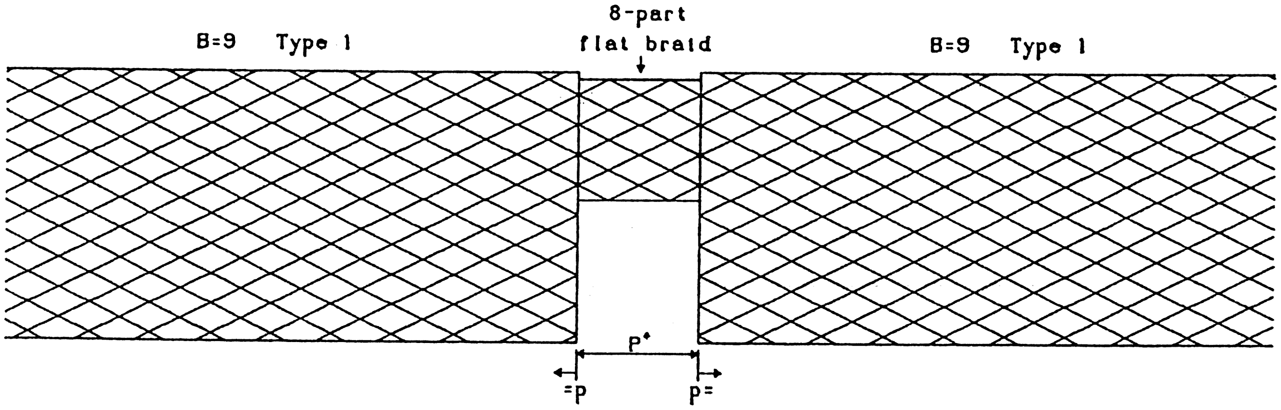
1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



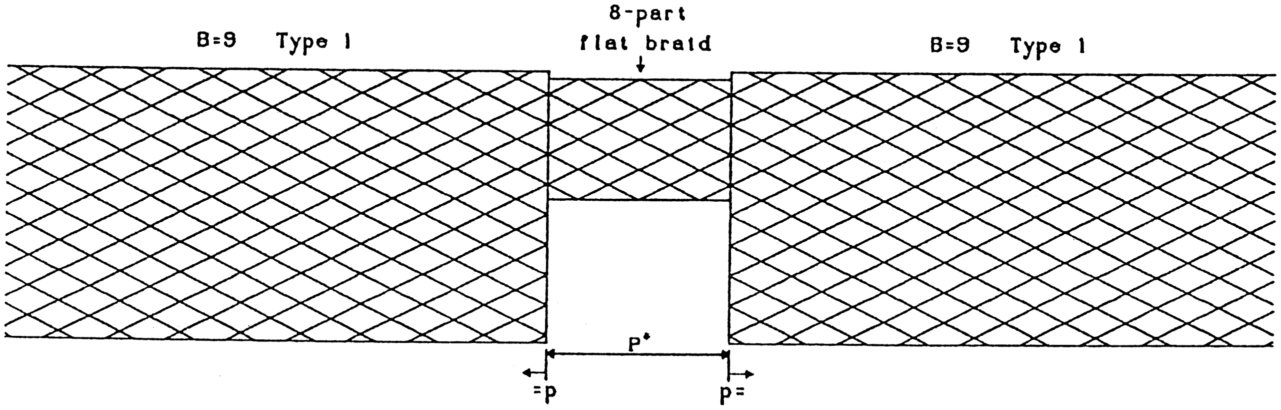
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



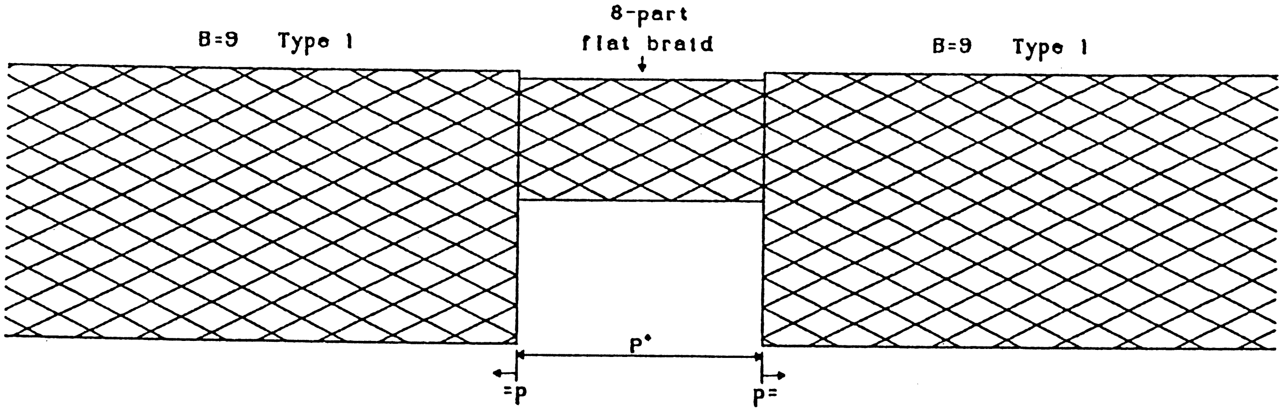
NO 1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



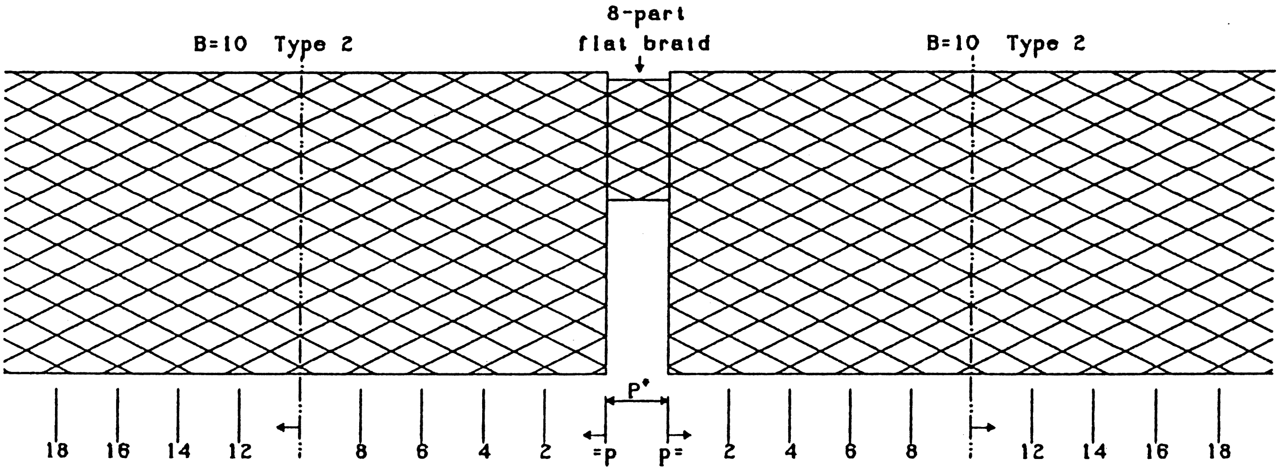
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



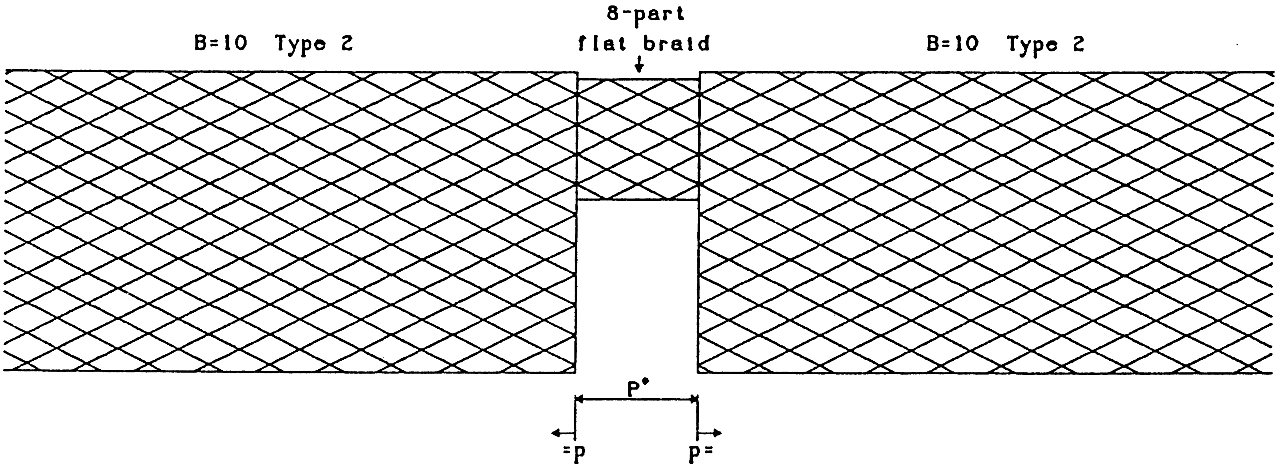
NO 1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



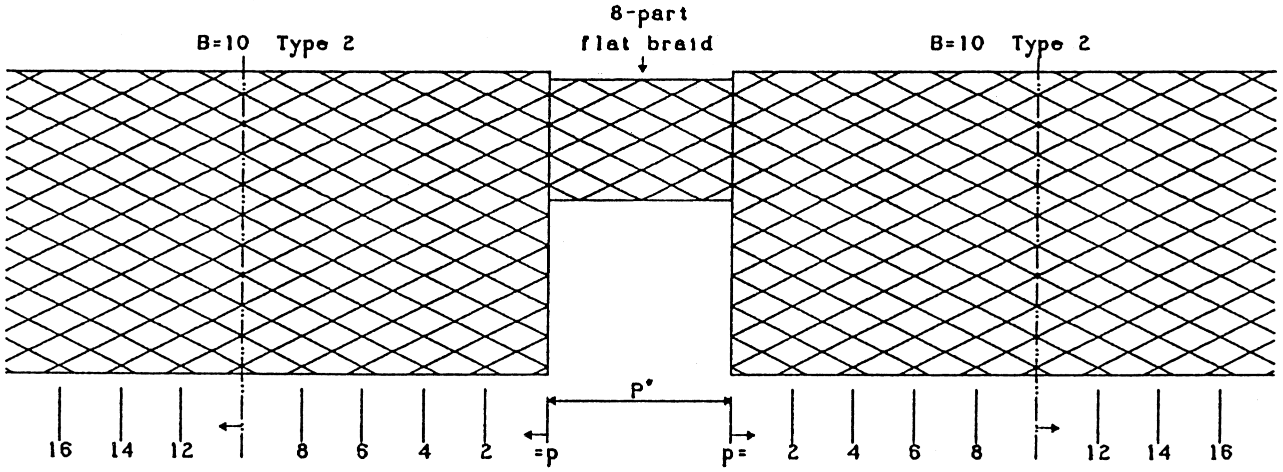
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



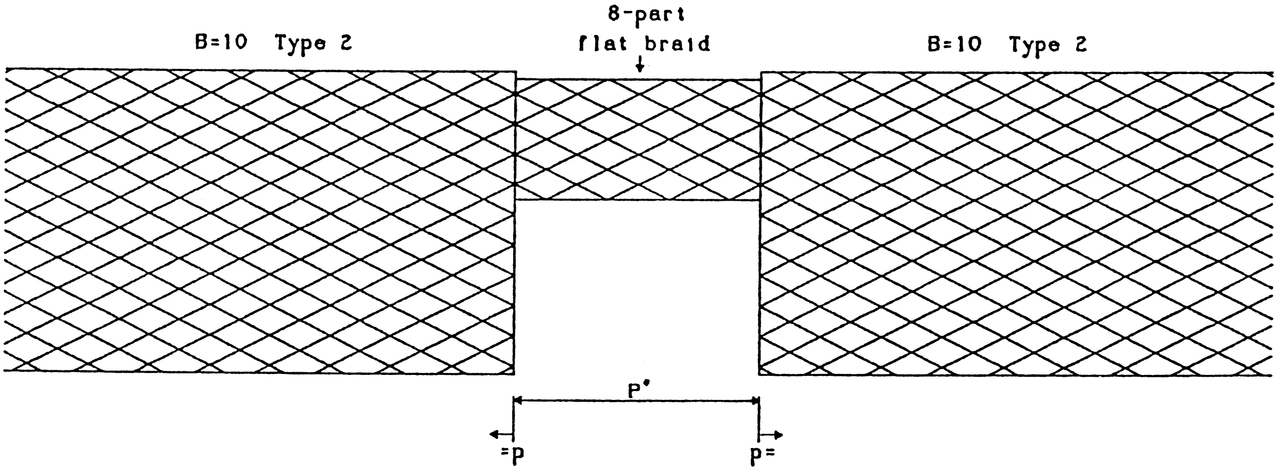
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



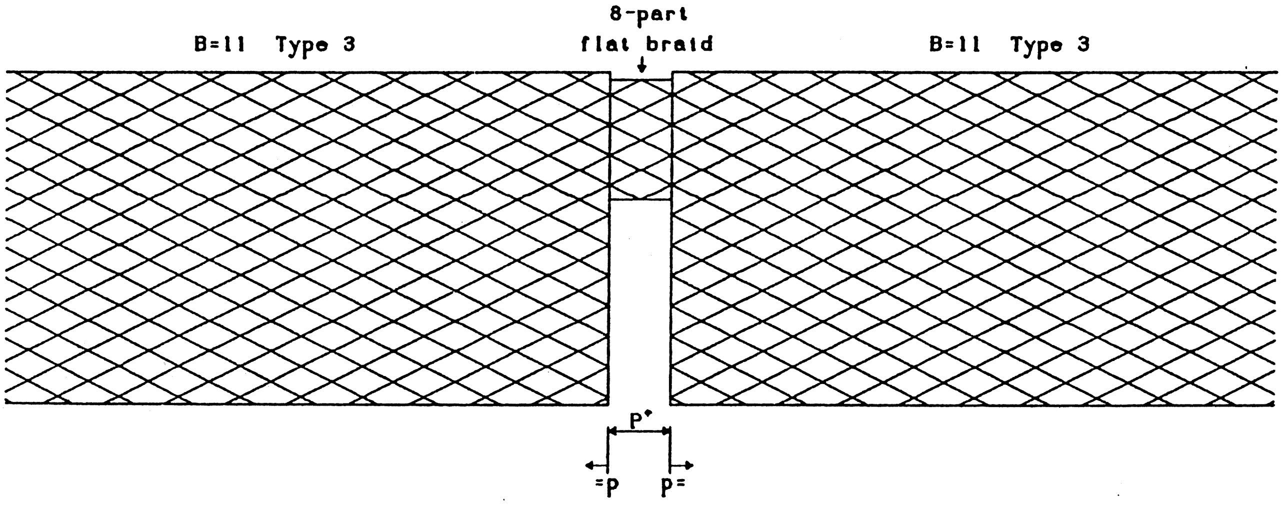
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



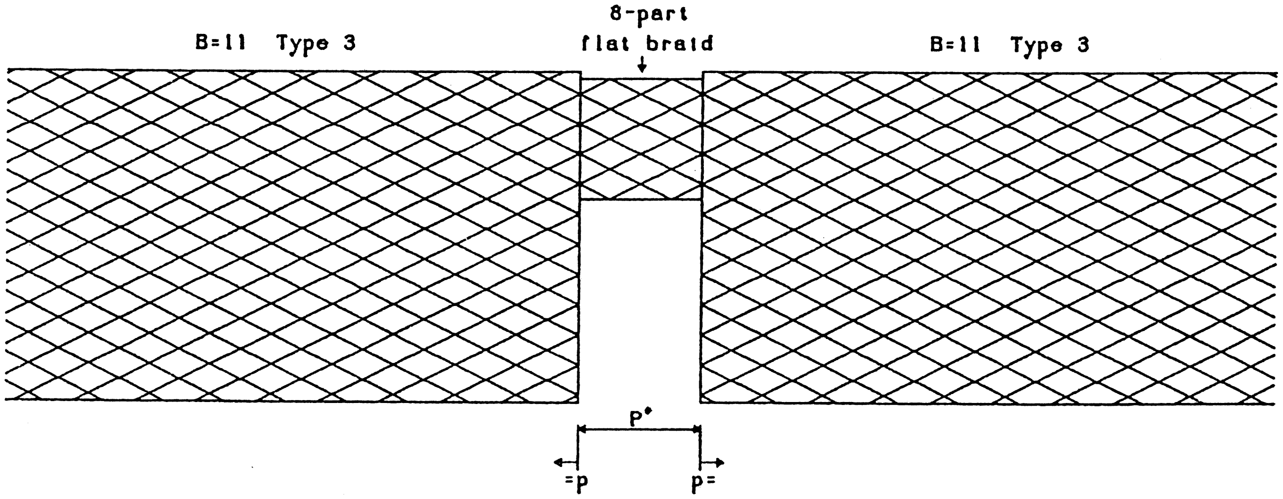
1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



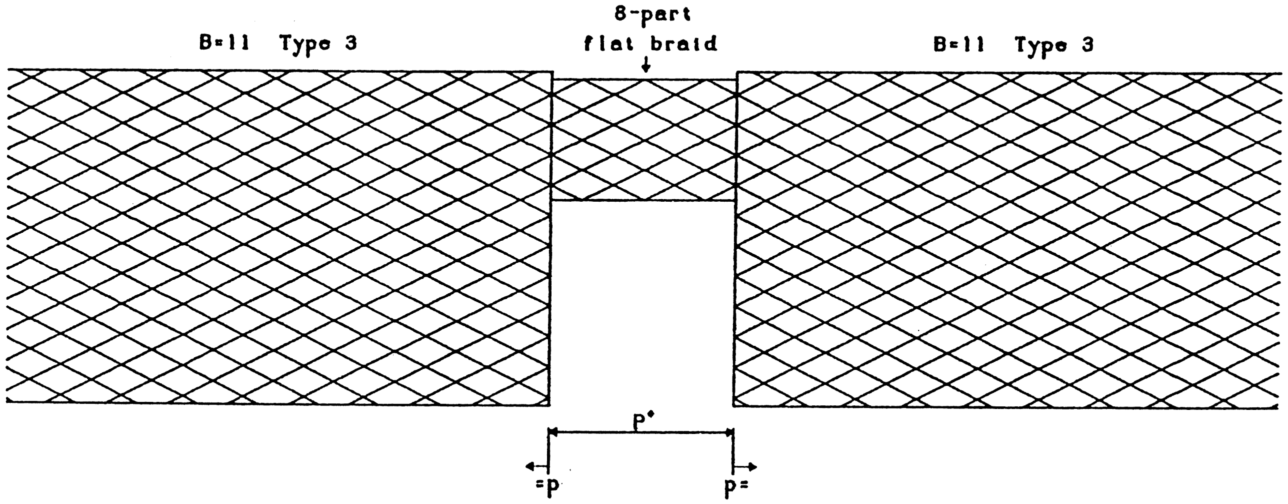
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



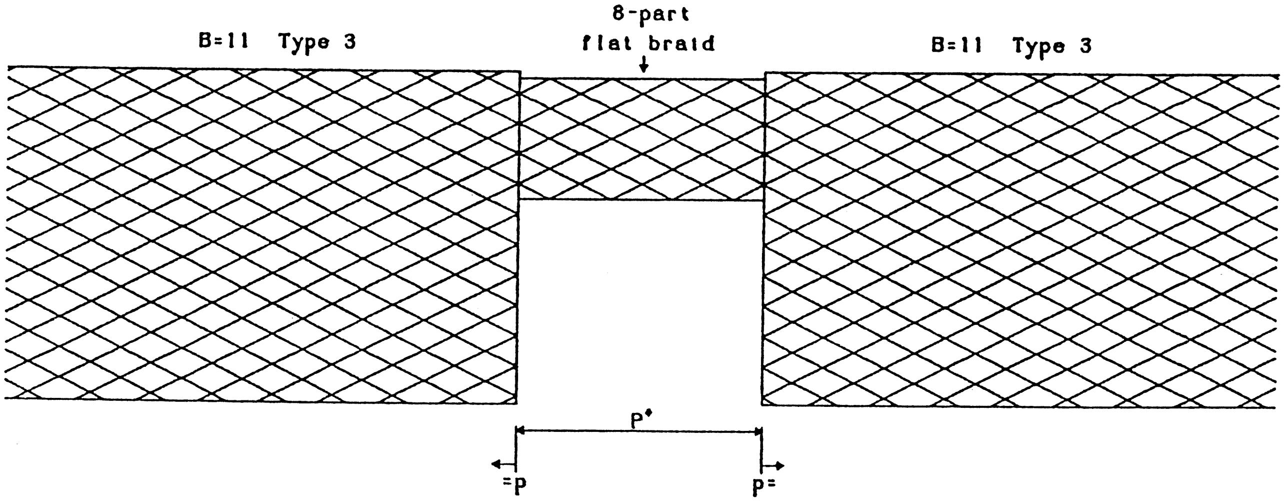
NO 1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



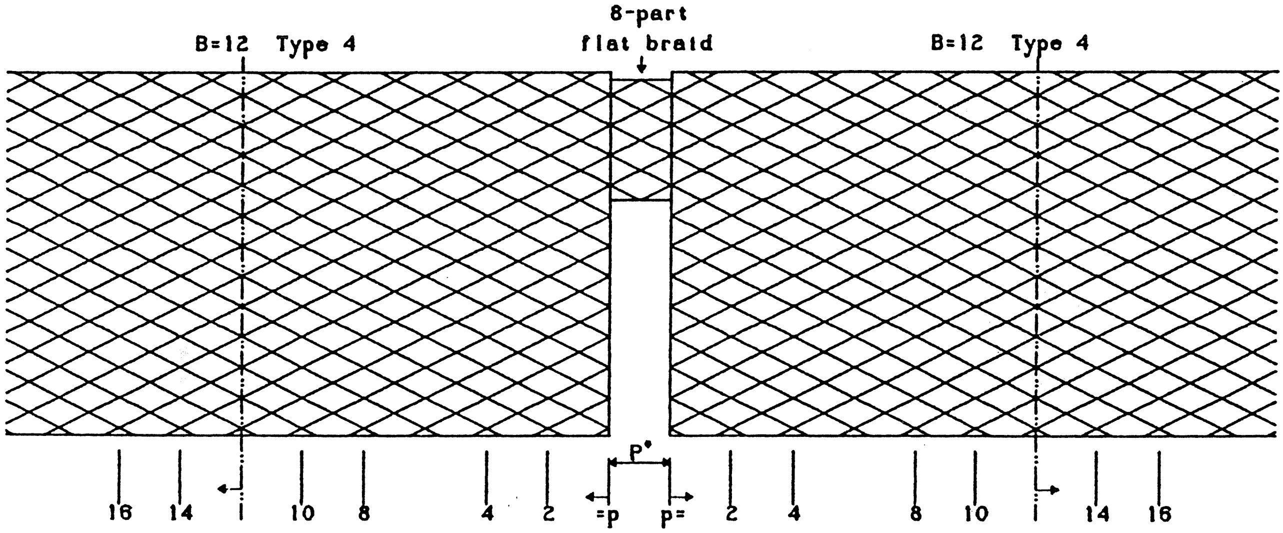
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



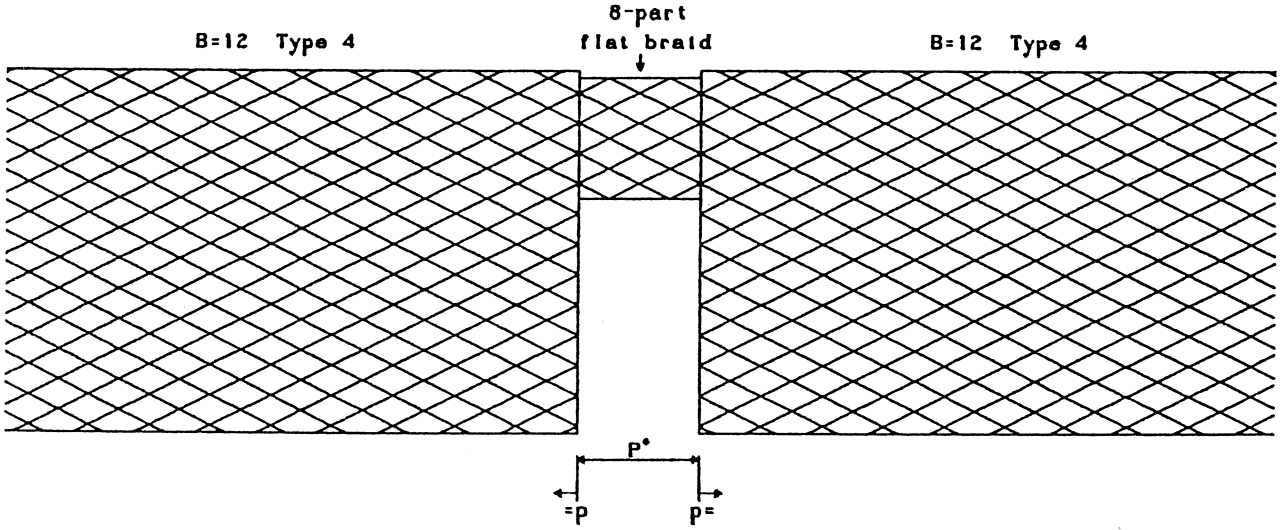
NO 1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



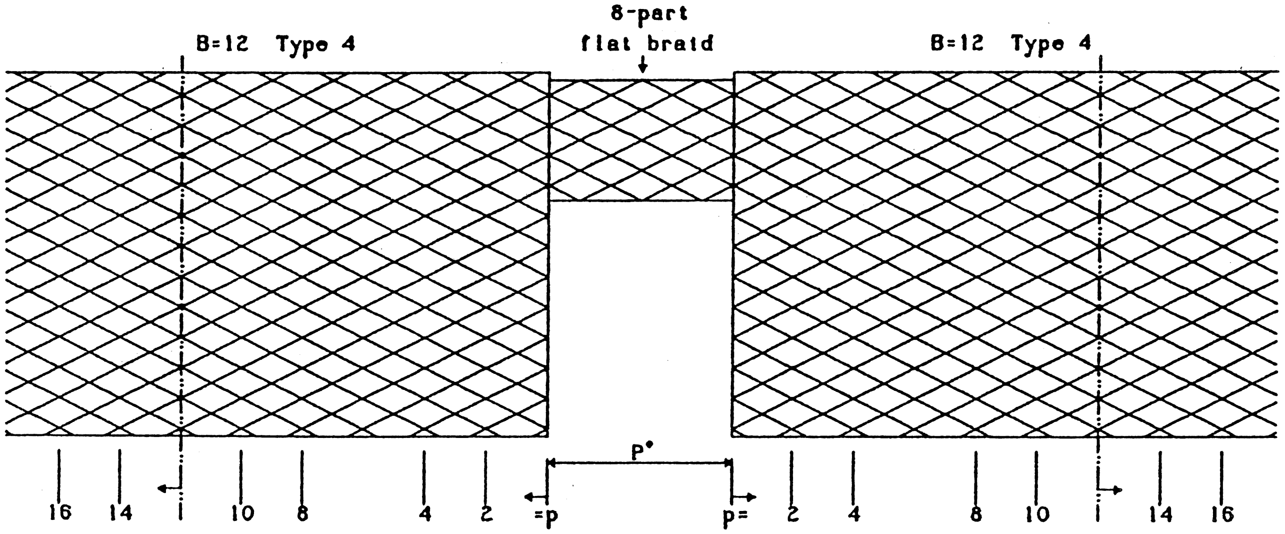
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



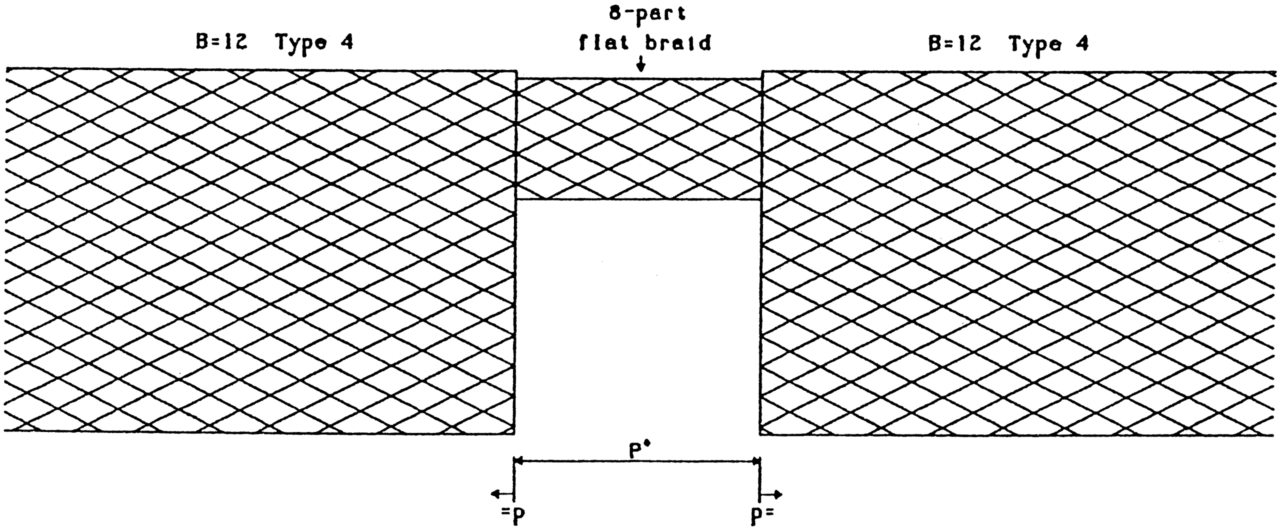
1-string solutions for $P^*=8n+2$ with $n=0.1.2.3....$



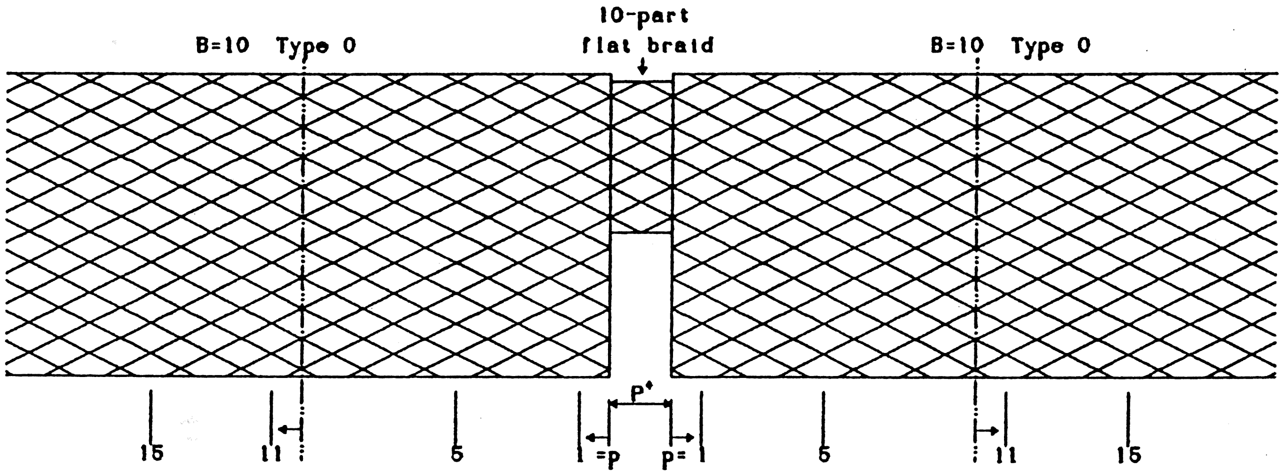
NO 1-string solutions for $P^*=8n+4$ with $n=0.1.2.3....$



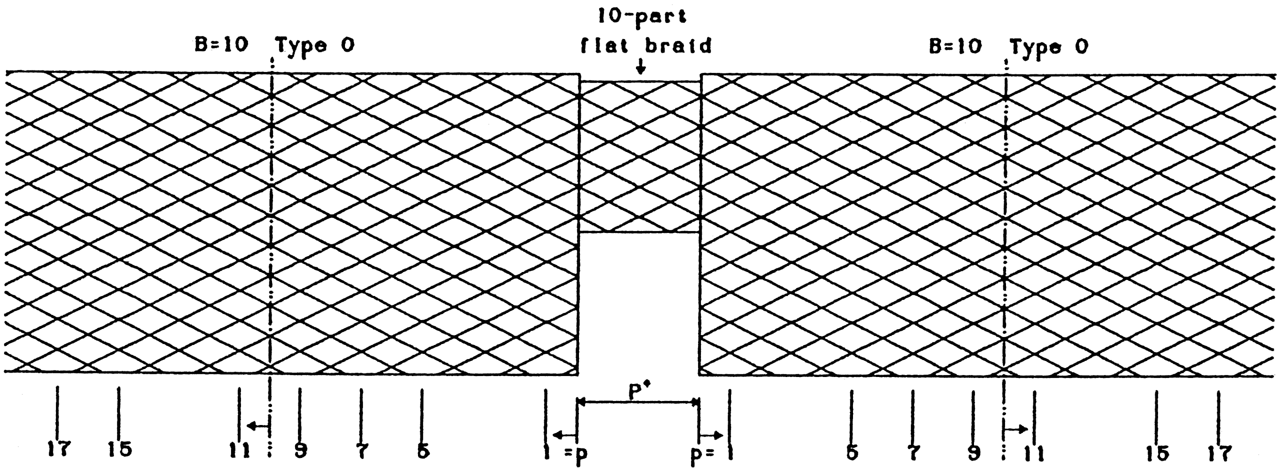
1-string solutions for $P^{*}=8n+6$ with n=0.1.2.3....



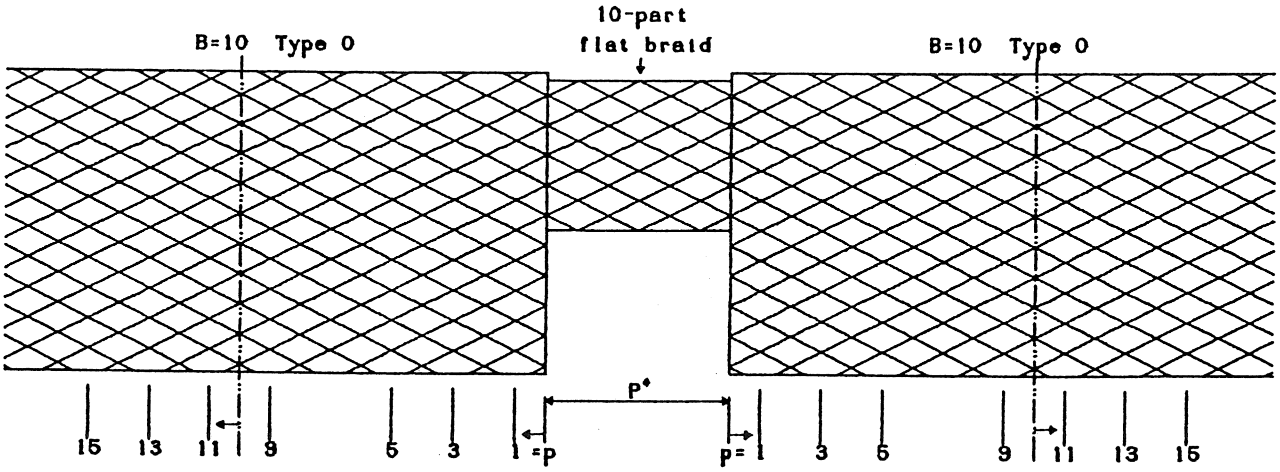
NO 1-string solutions for $P^{*}=8n+8$ with n=0.1.2.3....



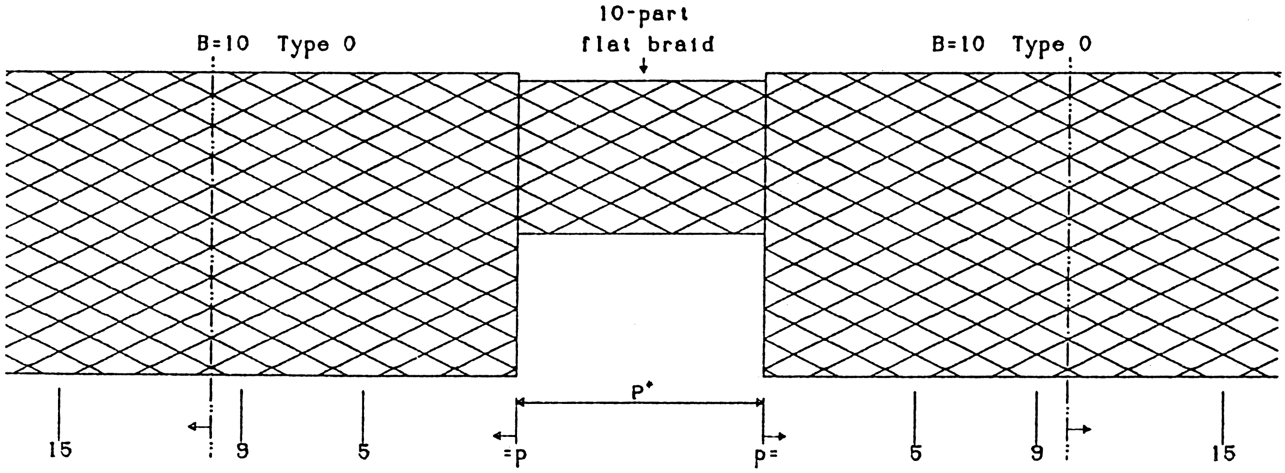
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



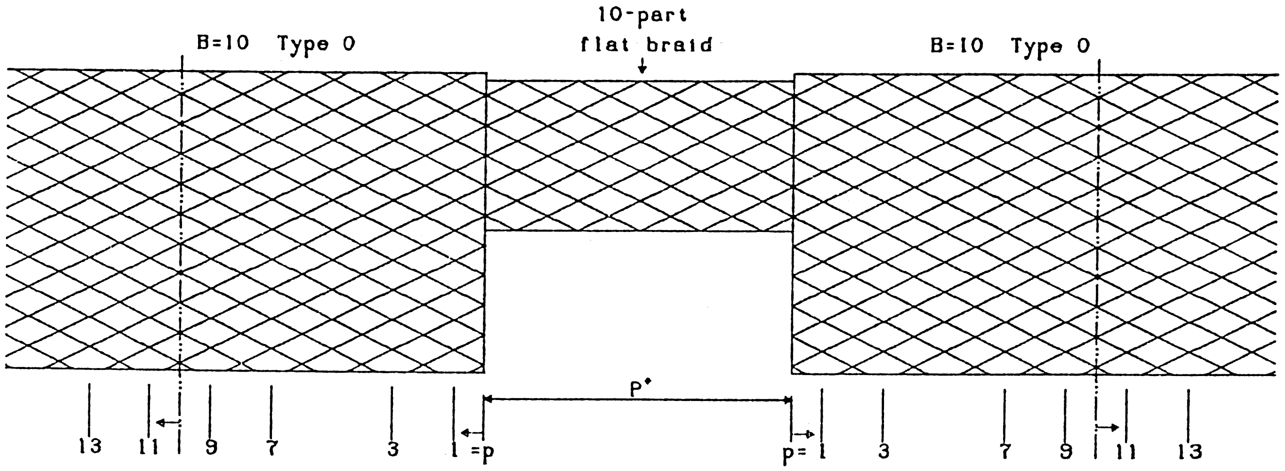
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



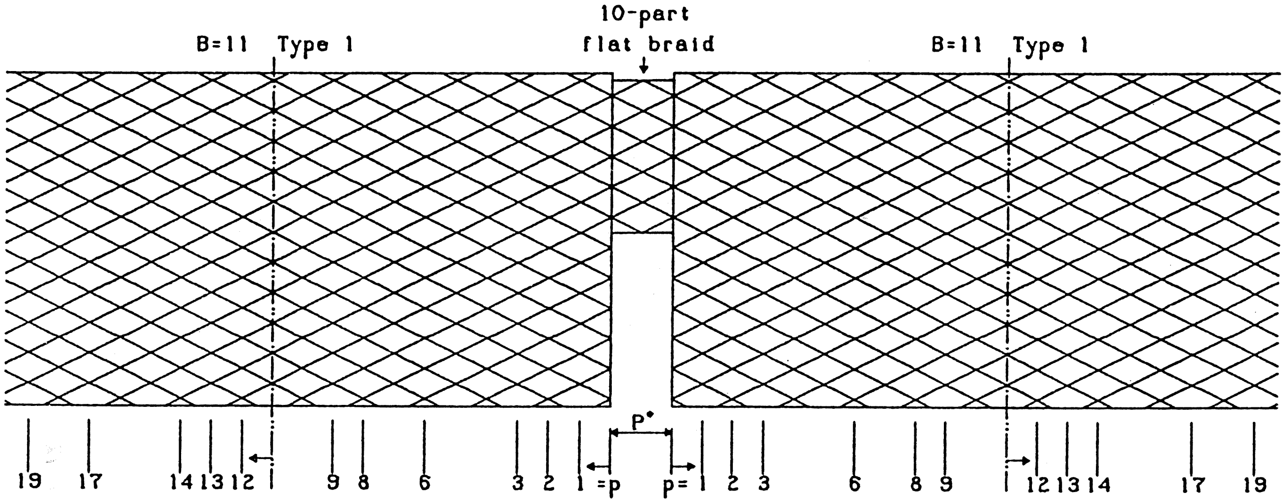
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



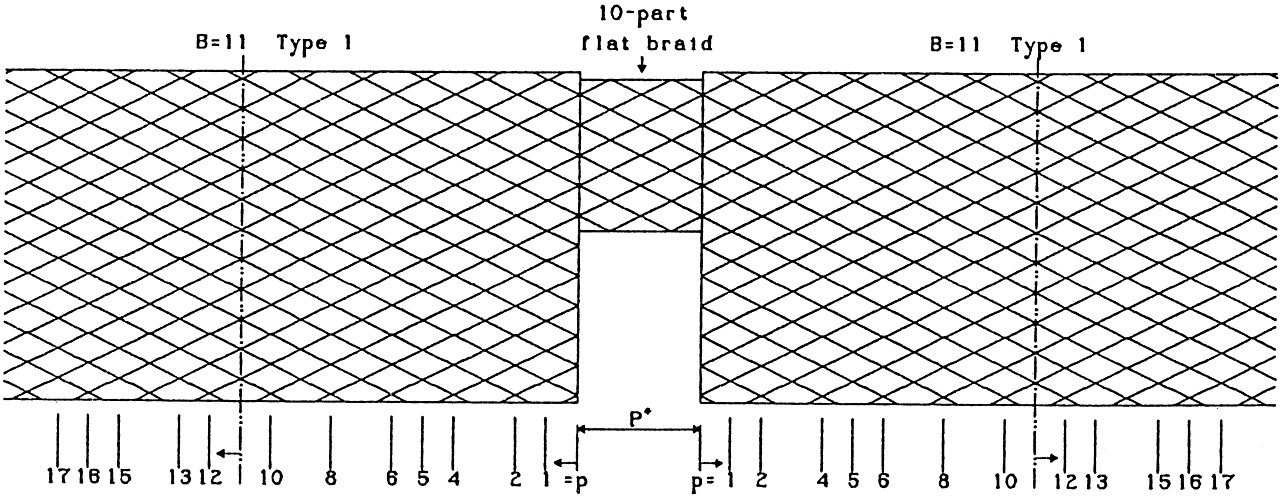
1-string solutions for $P^{*}=10n+8$ with n=0.1.2.3....



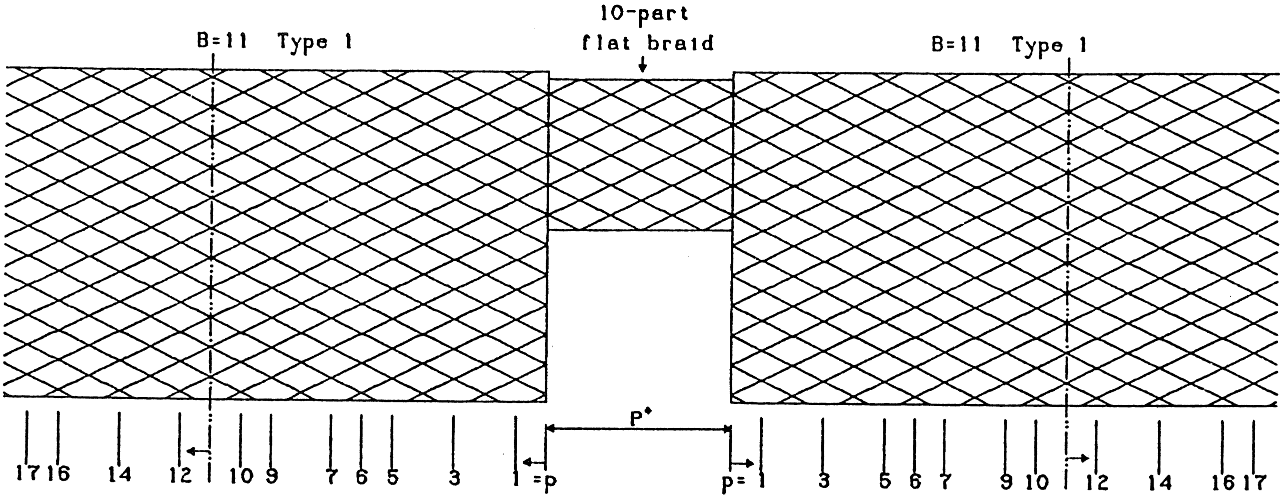
1-string solutions for $P^{*}=10n+10$ with n=0.1.2.3....


10-part
flat braid
B=11 Type 1
B=11 Type 1
P*
19 17 14 13 12 1 9 8 6 3 2 1 =p
p= 1 2 3 6 8 9 1 12 13 14 17 19

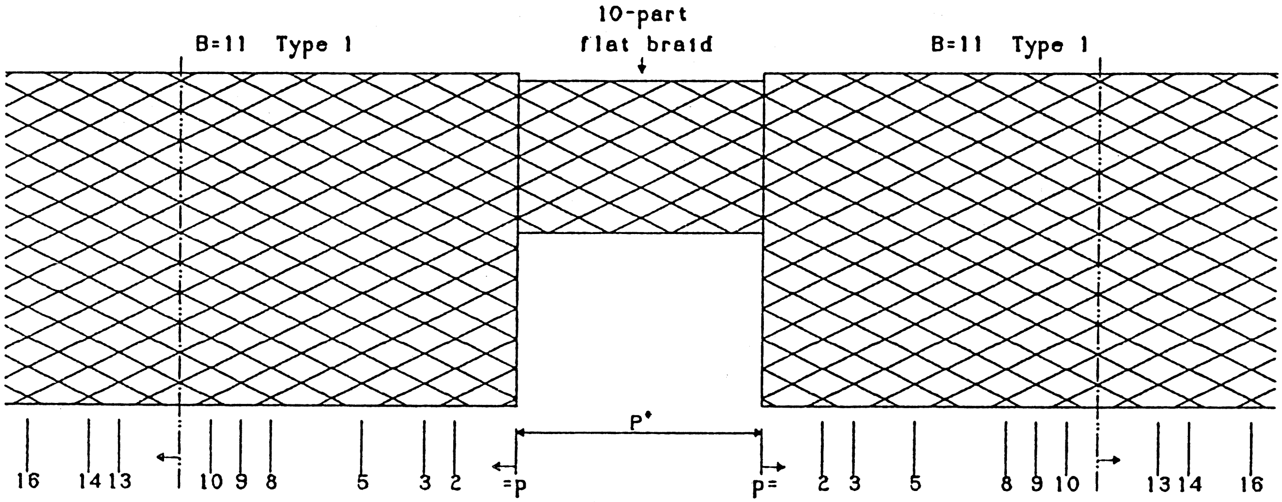
1-string solutions for P*=10n+2 with n=0.1.2.3....


10-part
flat braid
B=11 Type 1
B=11 Type 1
P*
17 16 15 13 12 1 10 8 6 5 4 2 1 =p
p= 1 2 4 5 6 8 10 1 12 13 15 16 17

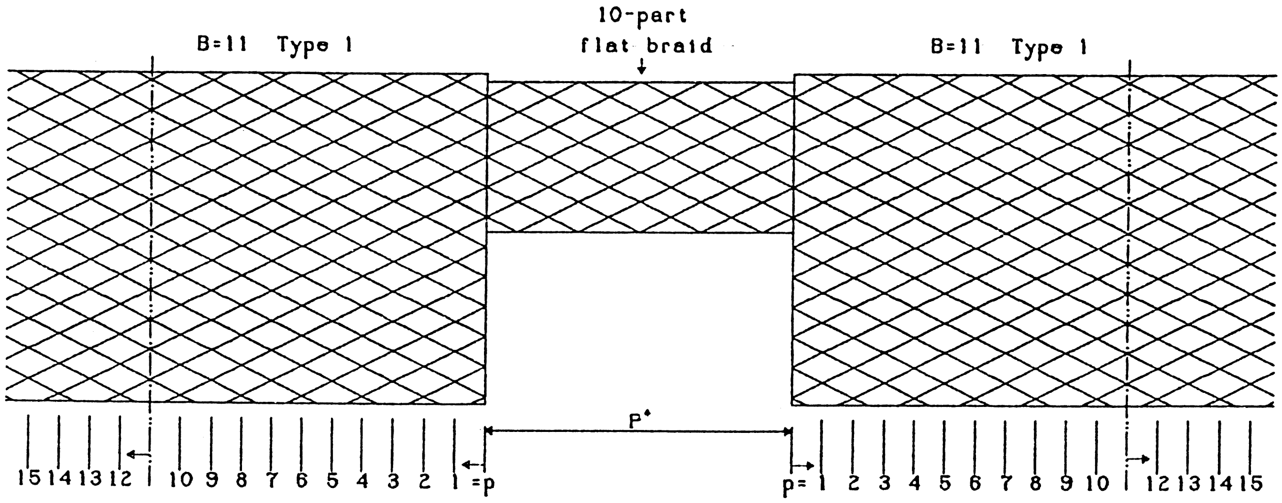
1-string solutions for P*=10n+4 with n=0.1.2.3....


10-part
flat braid
B=11 Type 1
B=11 Type 1
P*
17 16 14 12 1 10 9 7 6 5 3 1 =p
p= 1 3 5 6 7 9 10 1 12 14 16 17

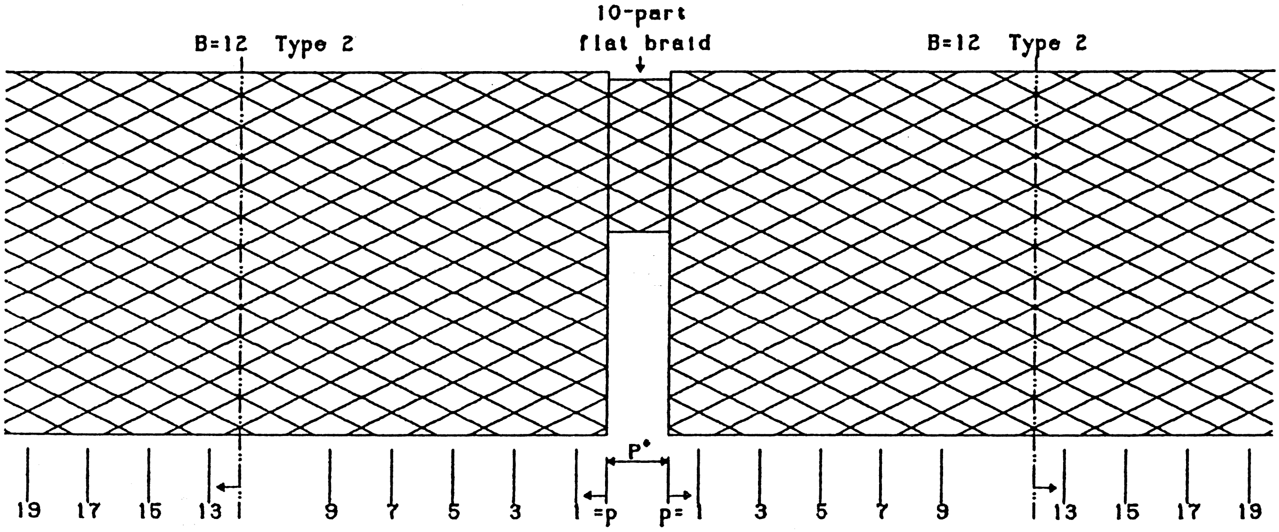
1-string solutions for P*=10n+6 with n=0.1.2.3....



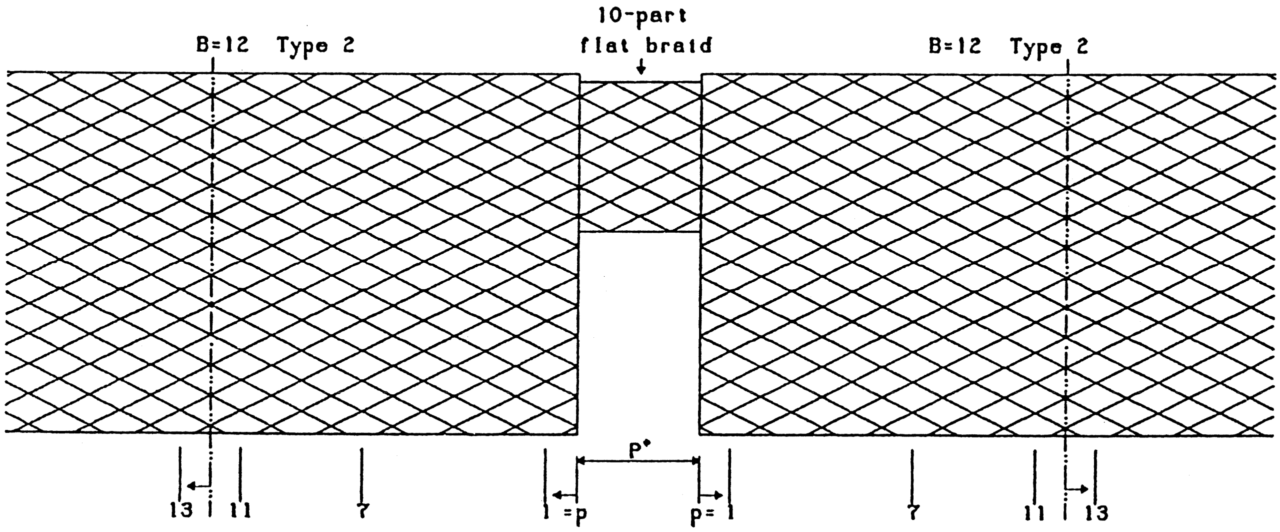
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....


10-part
flat braid
B=11 Type 1
B=11 Type 1
P*
15 14 13 12 1 10 9 8 7 6 5 4 3 2 1 =p
p= 1 2 3 4 5 6 7 8 9 10 1 12 13 14 15

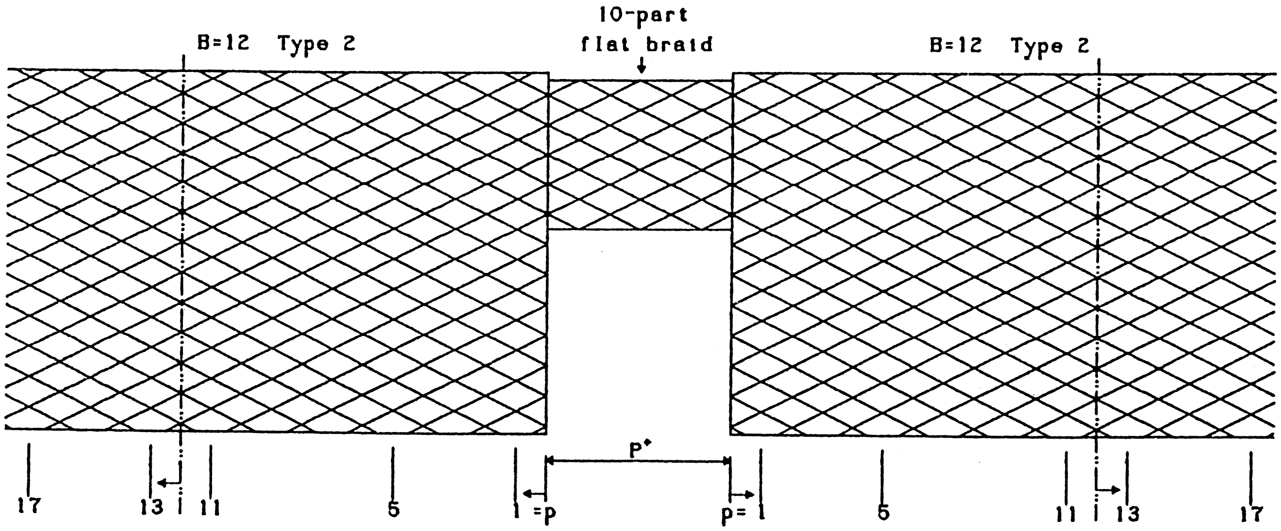
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



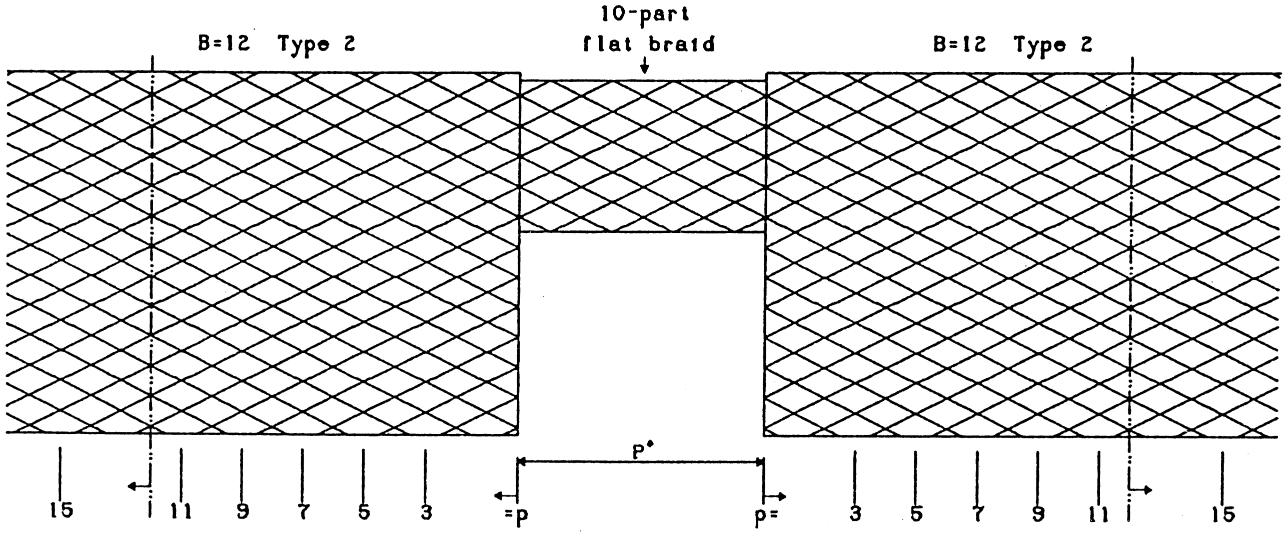
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



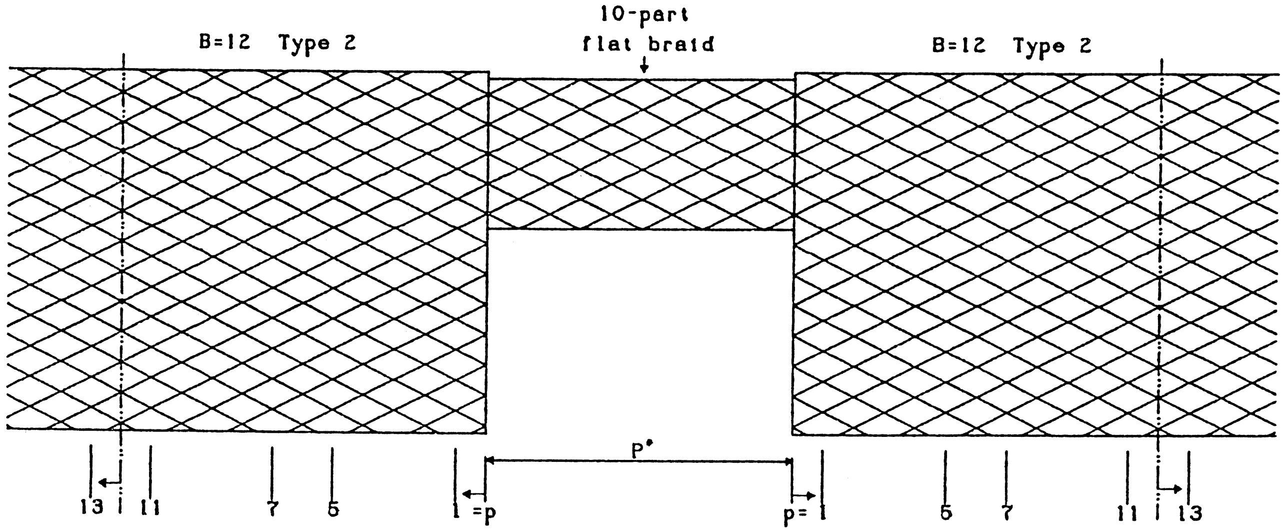
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



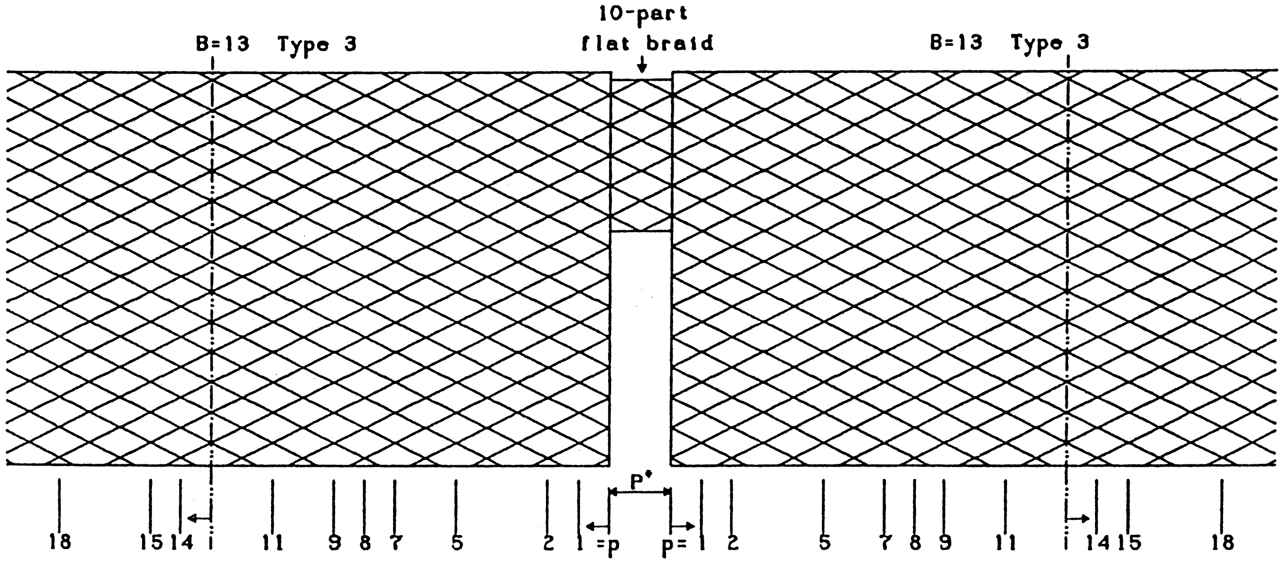
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



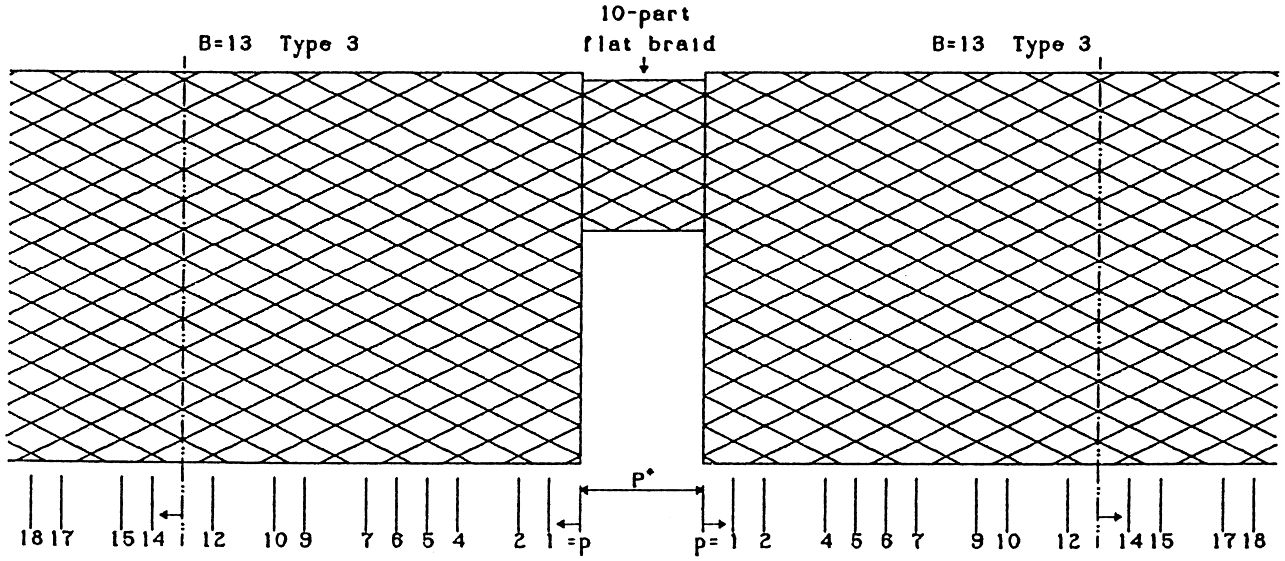
1-string solutions for P*=10n+8 with n=0.1.2.3....



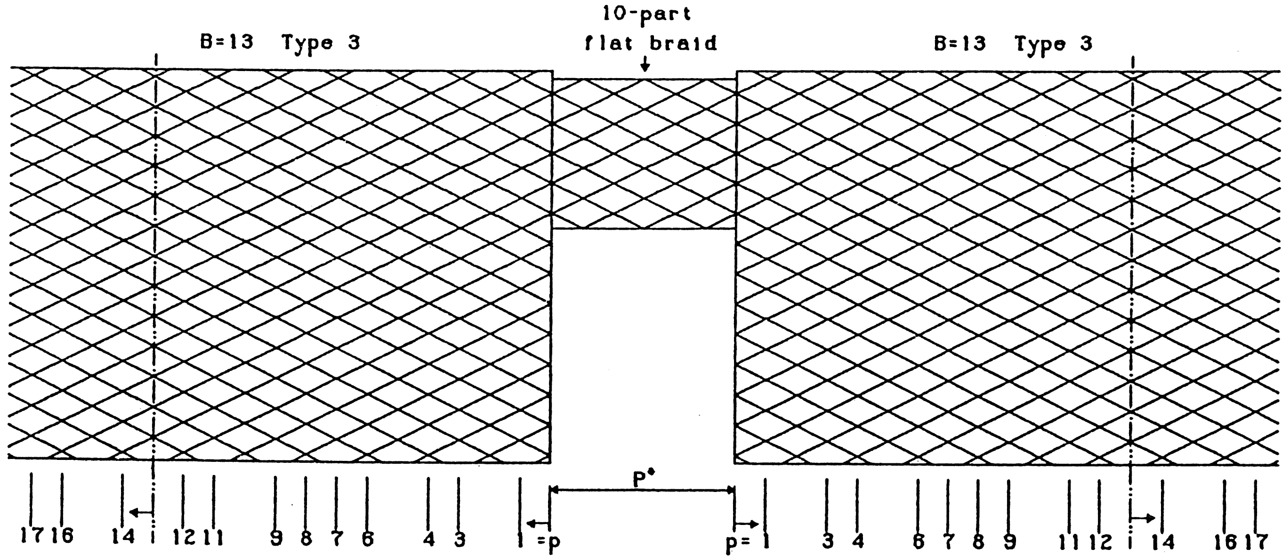
1-string solutions for P*=10n+10 with n=0.1.2.3....



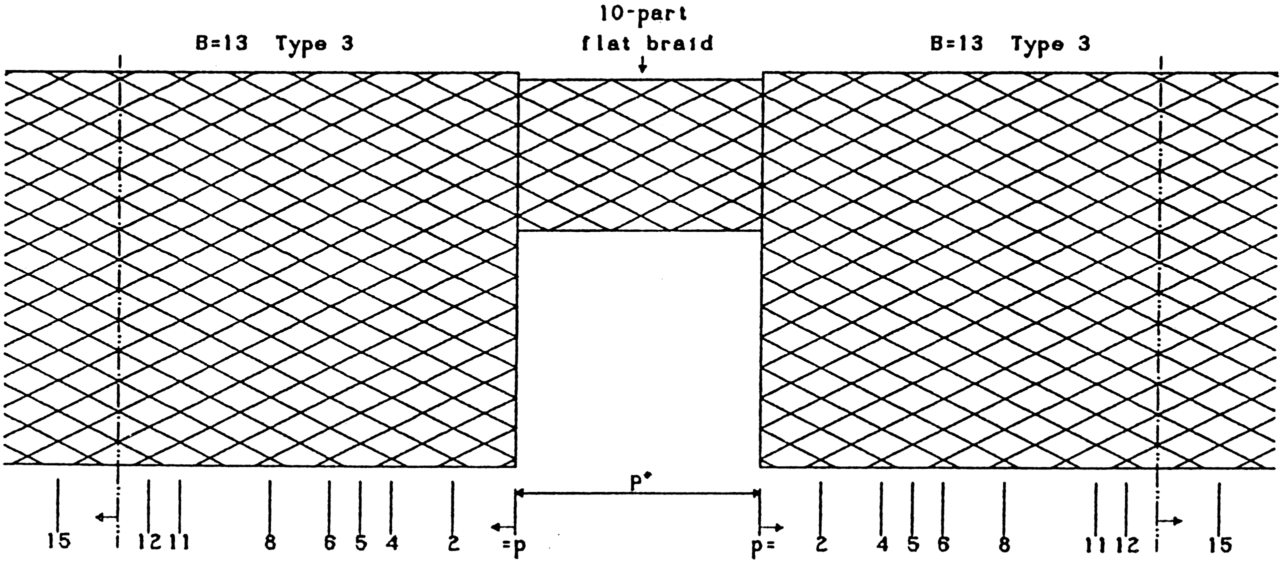
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



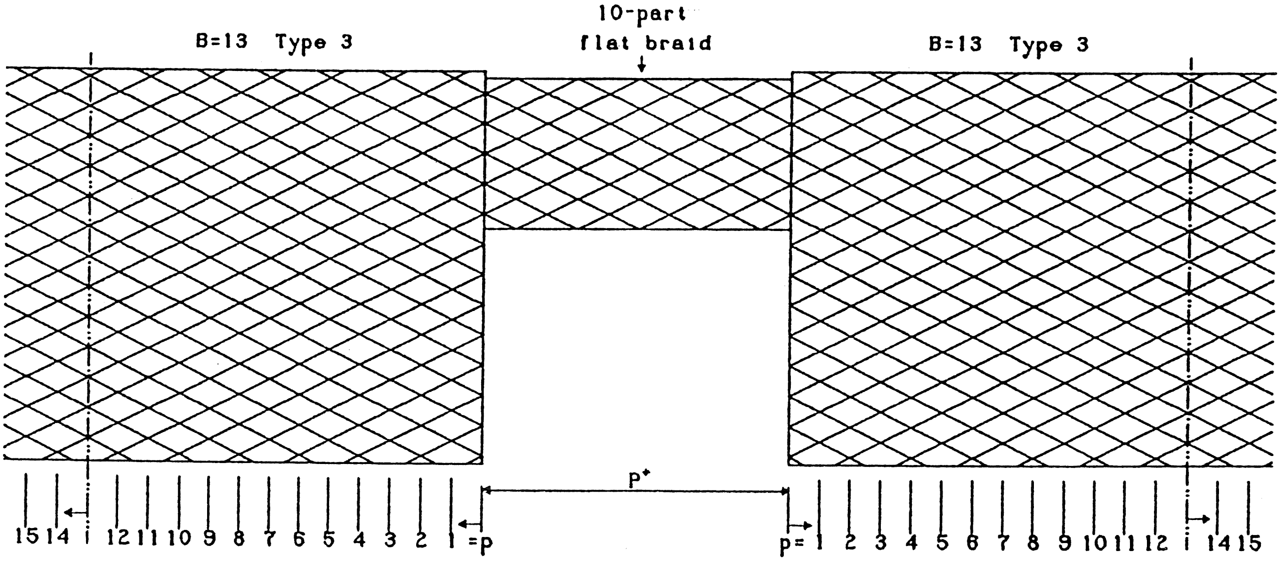
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



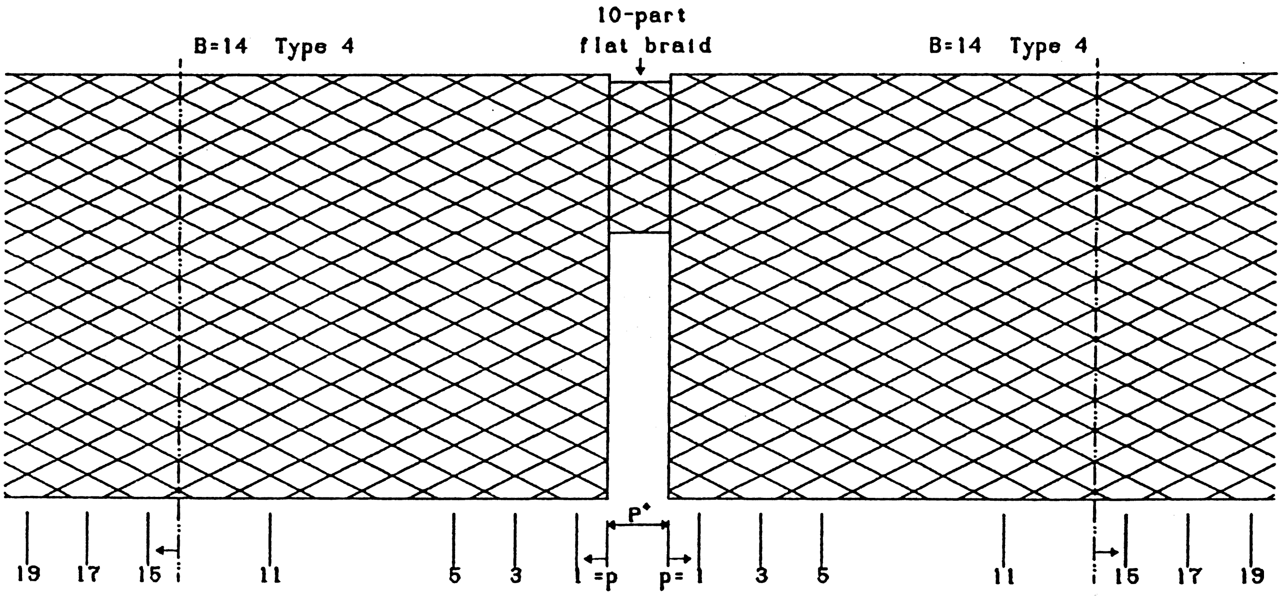
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



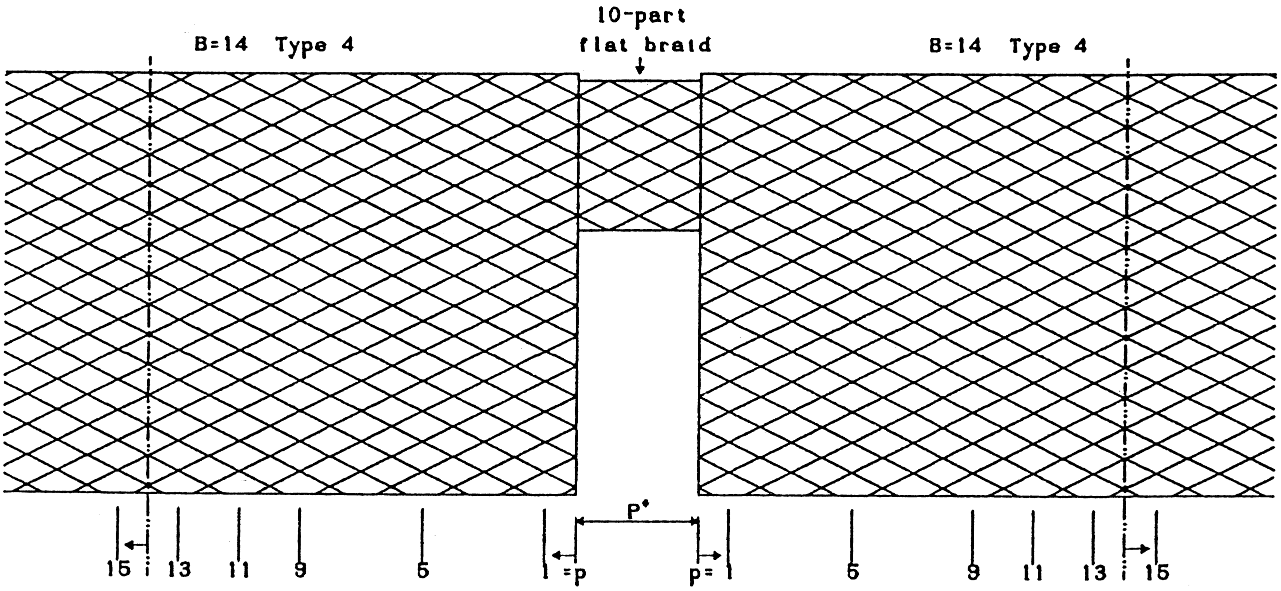
1-string solutions for P*=10n+8 with n=0.1.2.3....


10-part
flat braid
B=13 Type 3
B=13 Type 3
P*
15 14 i 12 11 10 9 8 7 6 5 4 3 2 1 =p
p= 1 2 3 4 5 6 7 8 9 10 11 12 i 14 15

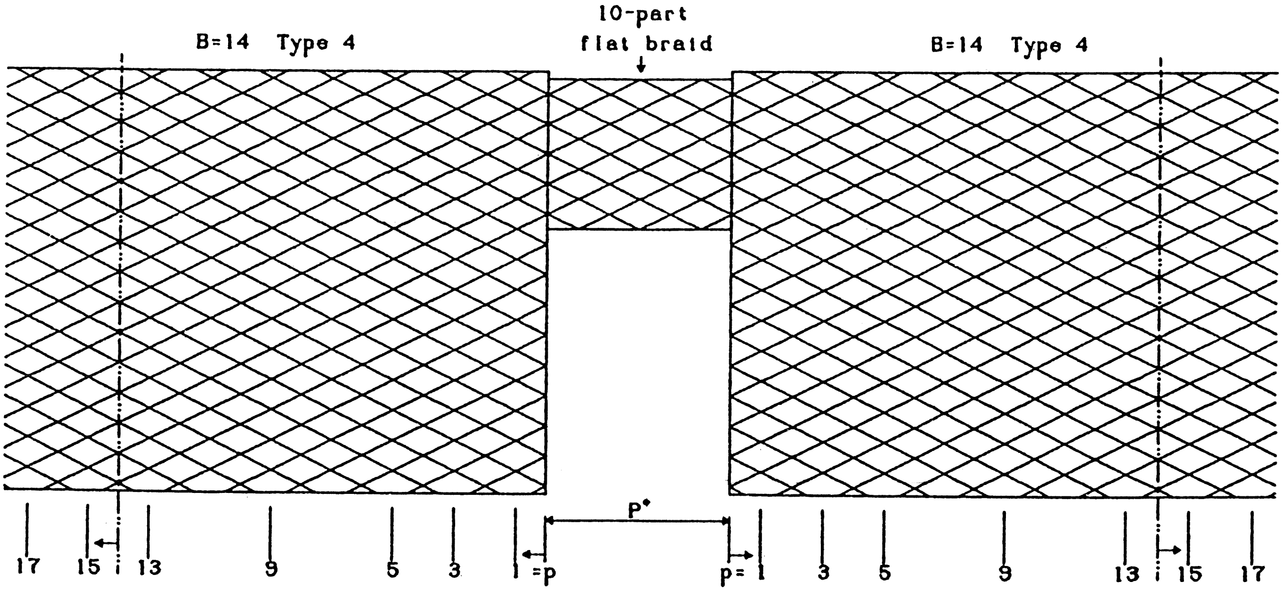
1-string solutions for P*=10n+10 with n=0.1.2.3....



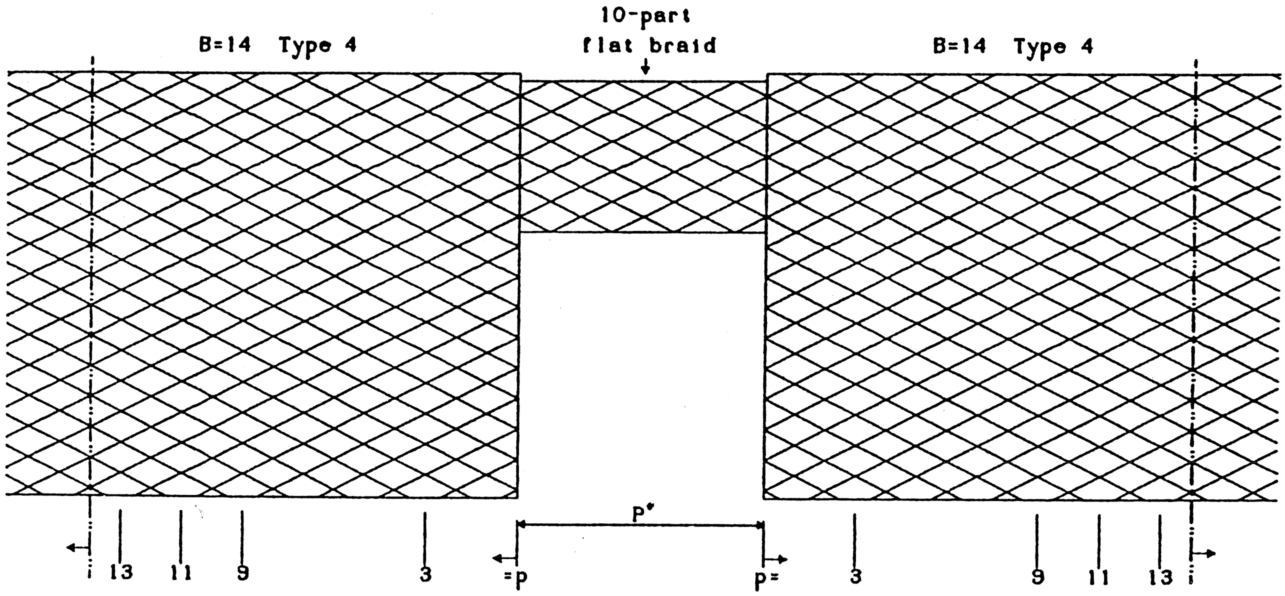
1-string solutions for $P^*=10n+2$ with $n=0.1.2.3....$



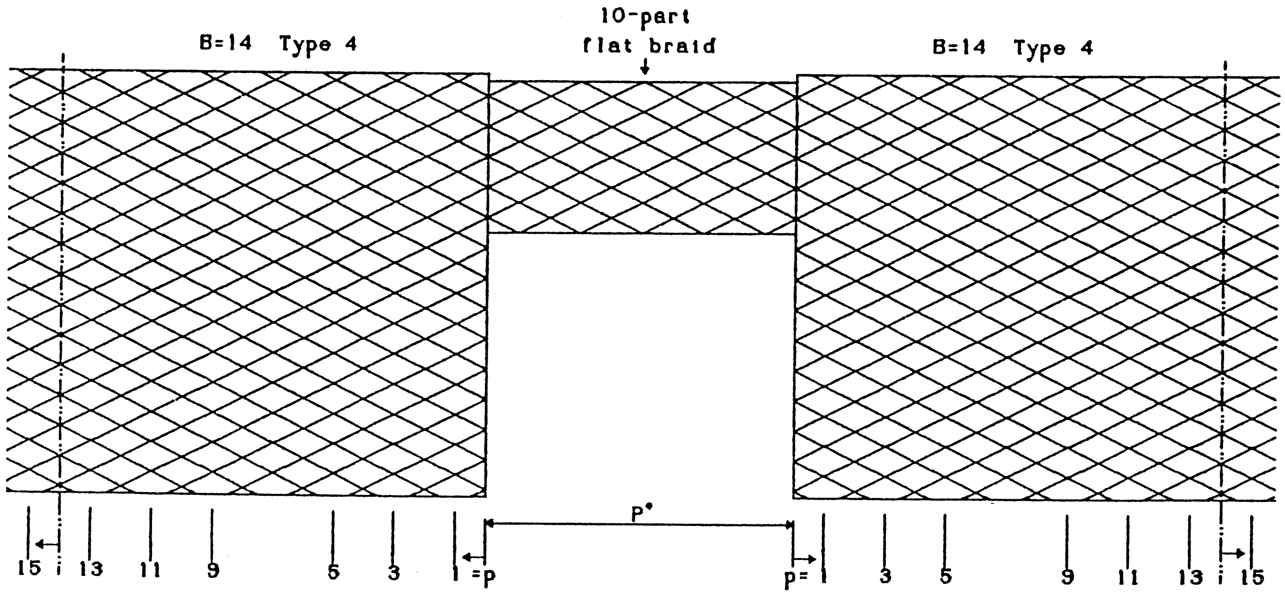
1-string solutions for $P^*=10n+4$ with $n=0.1.2.3....$



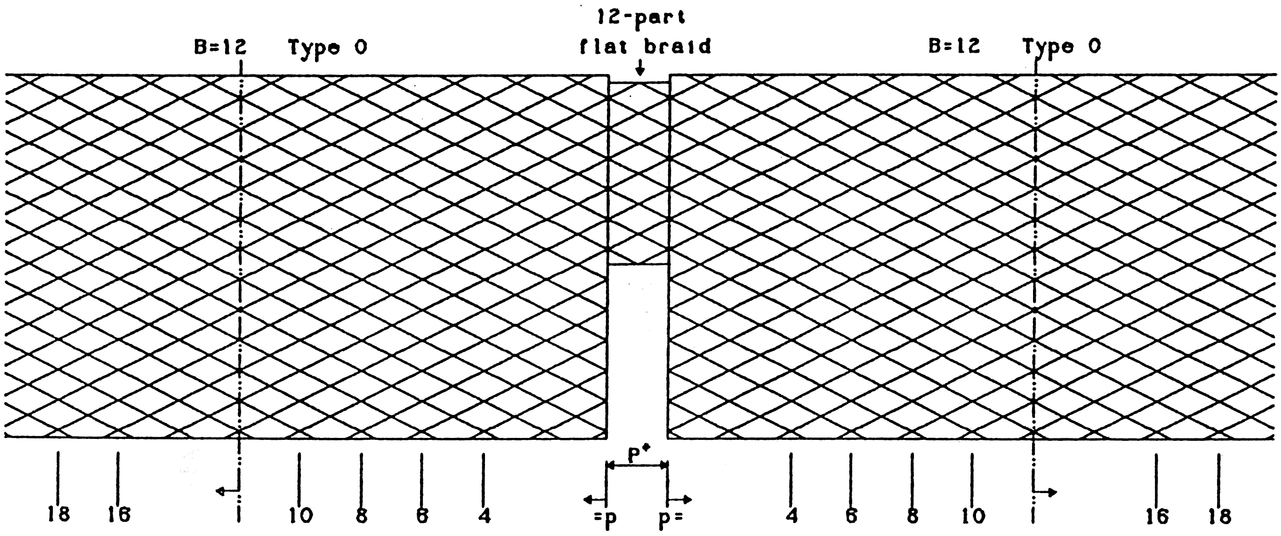
1-string solutions for $P^*=10n+6$ with $n=0.1.2.3....$



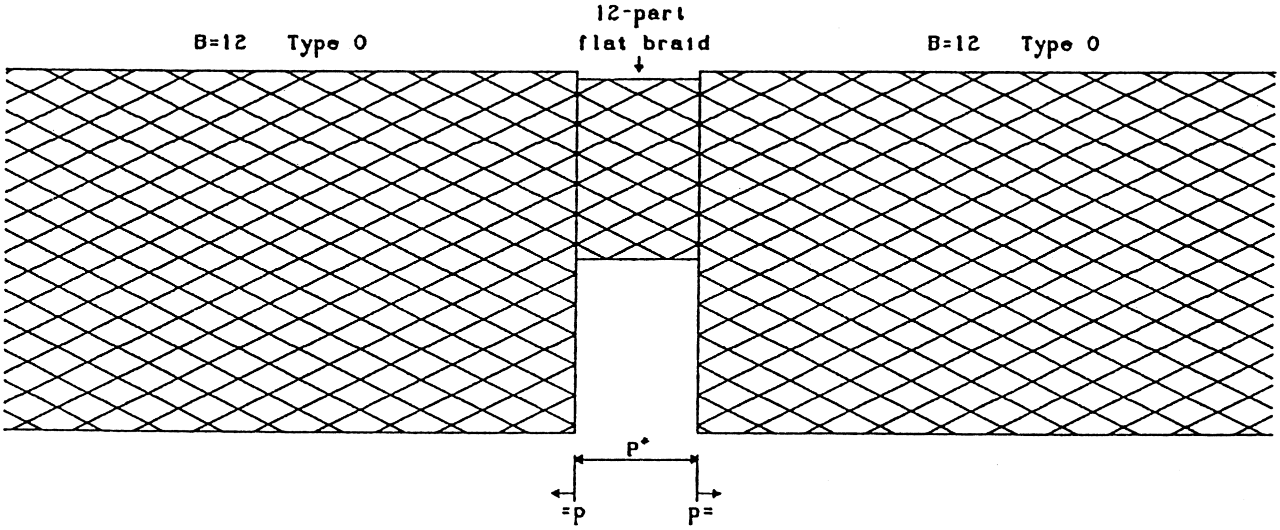
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



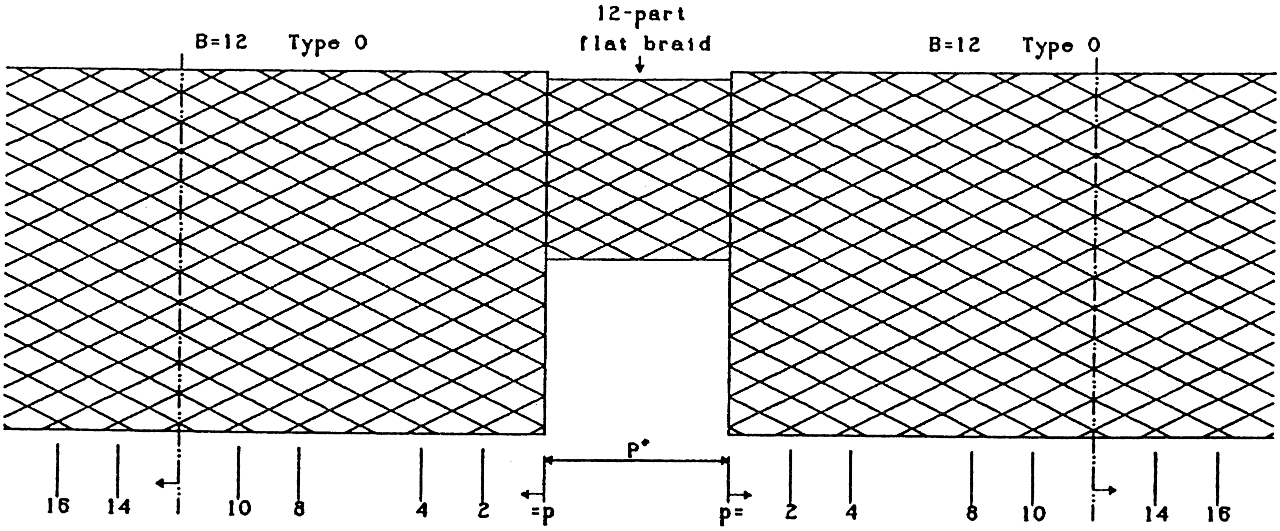
1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



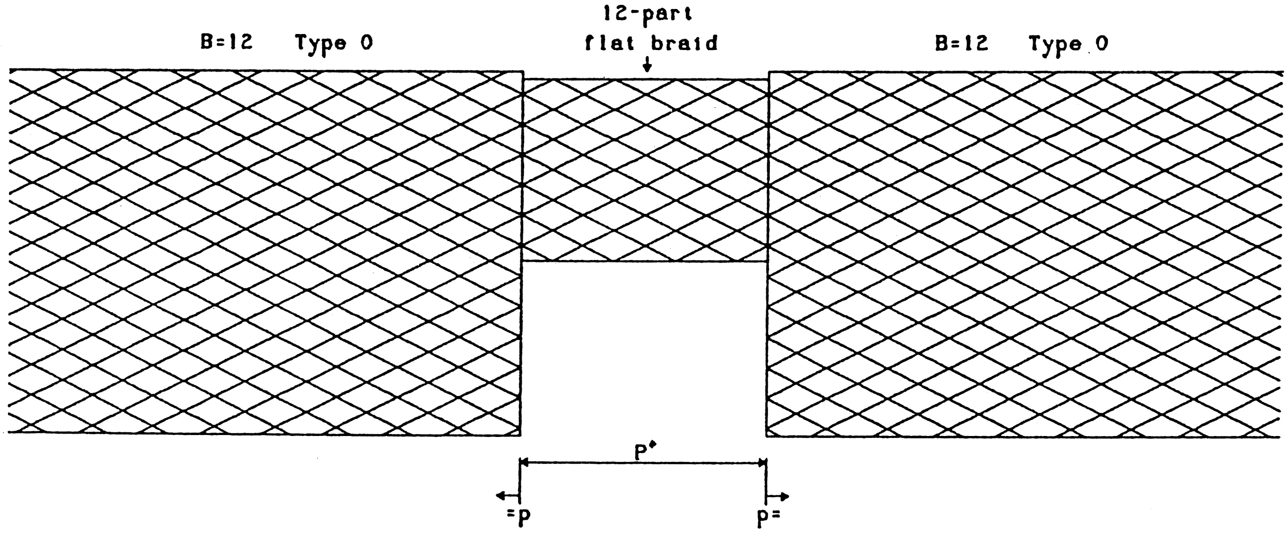
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



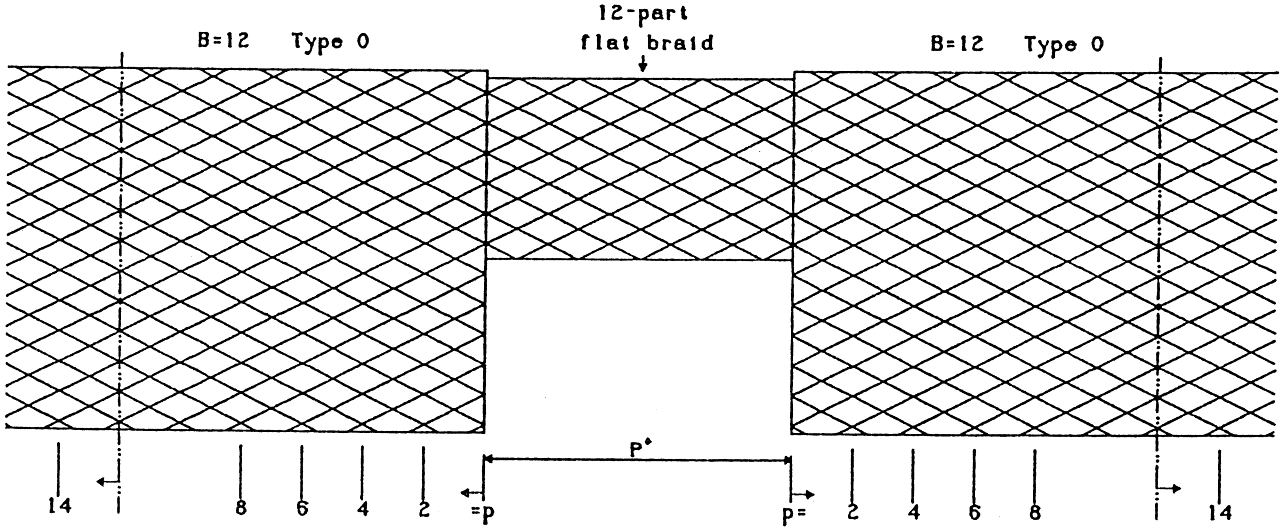
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



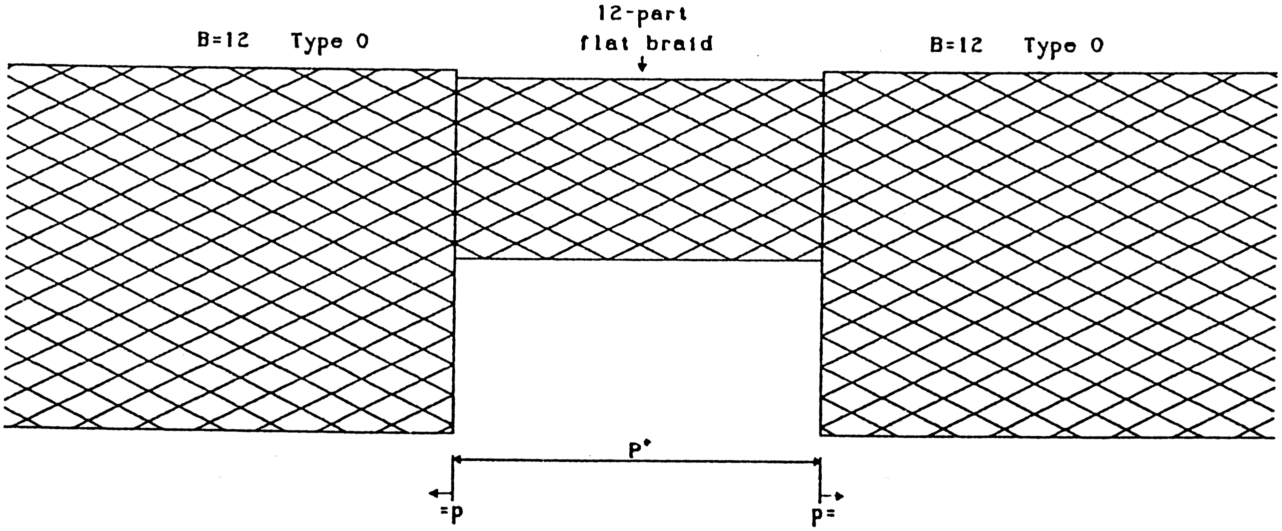
1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



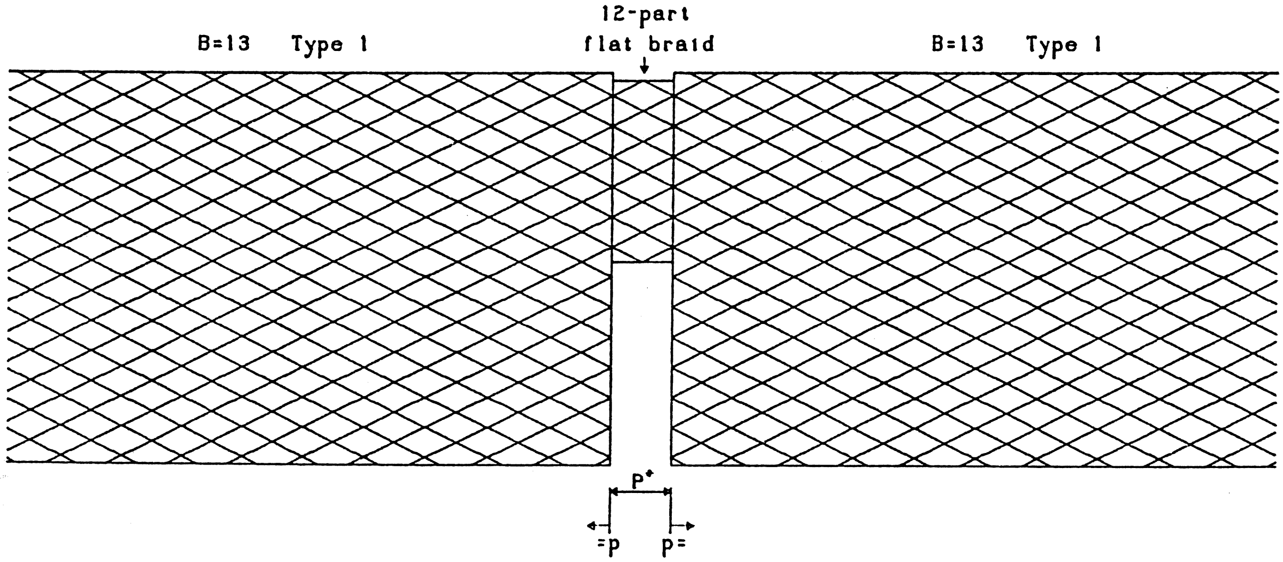
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



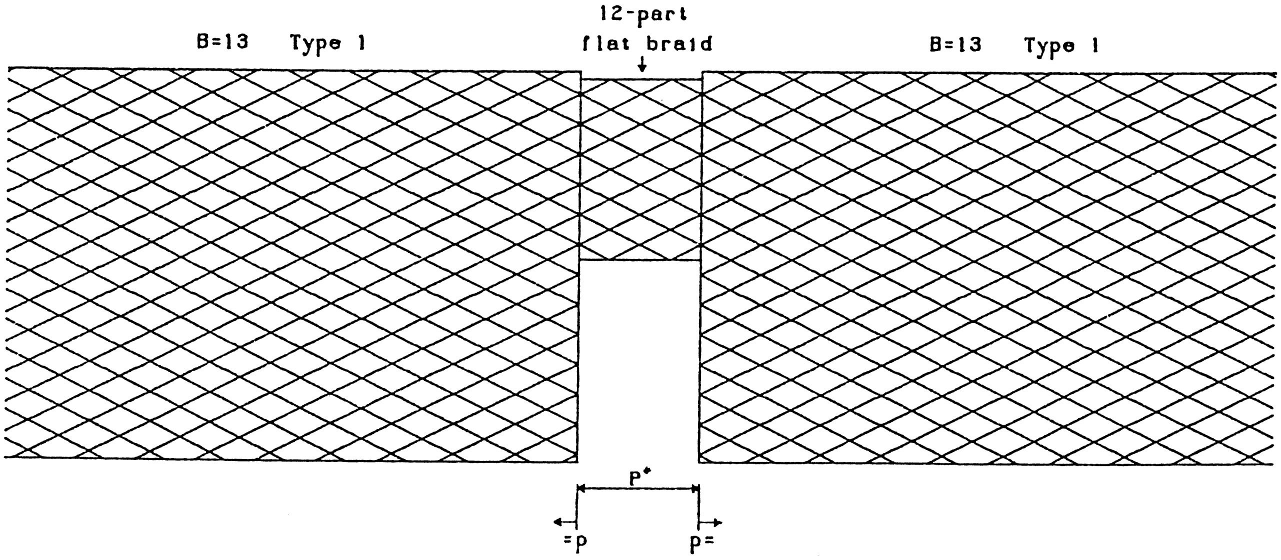
1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



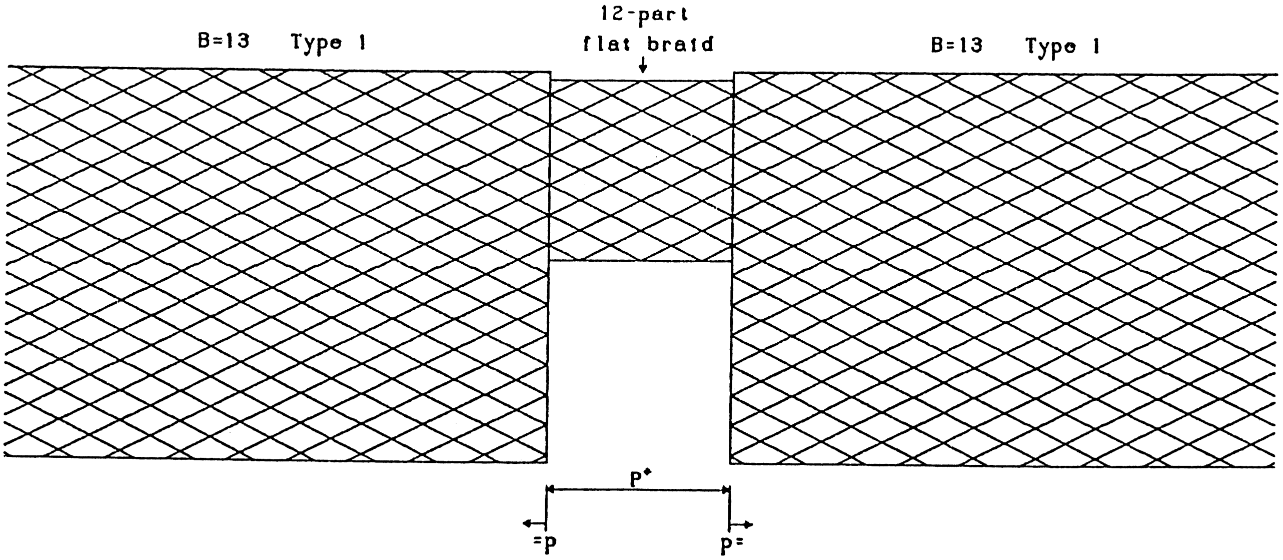
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



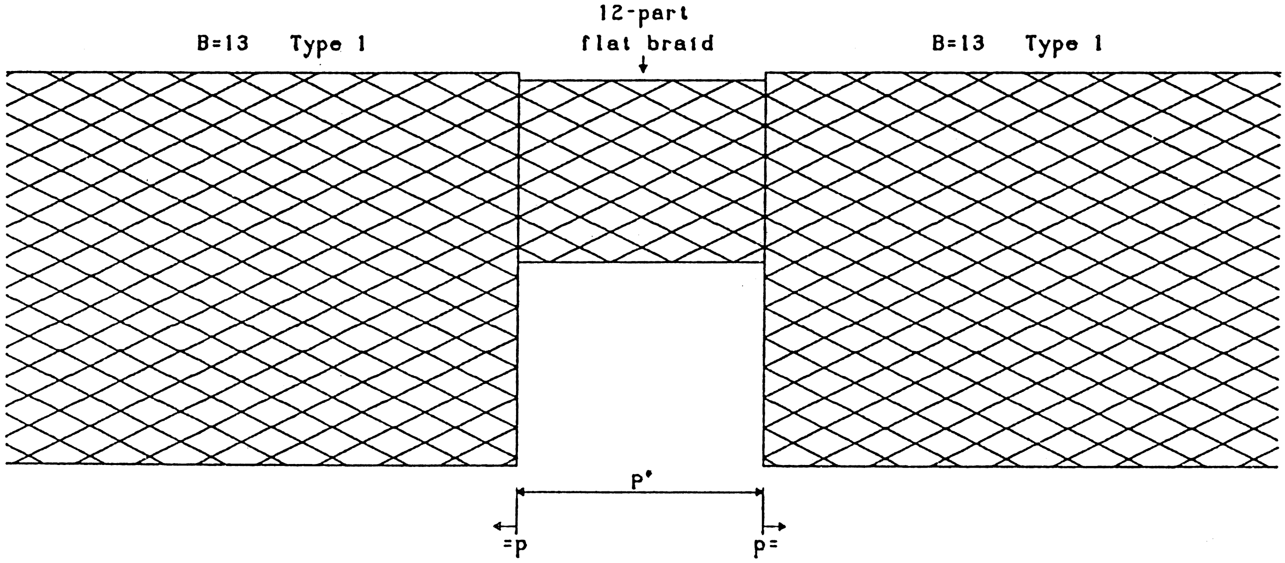
NO 1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



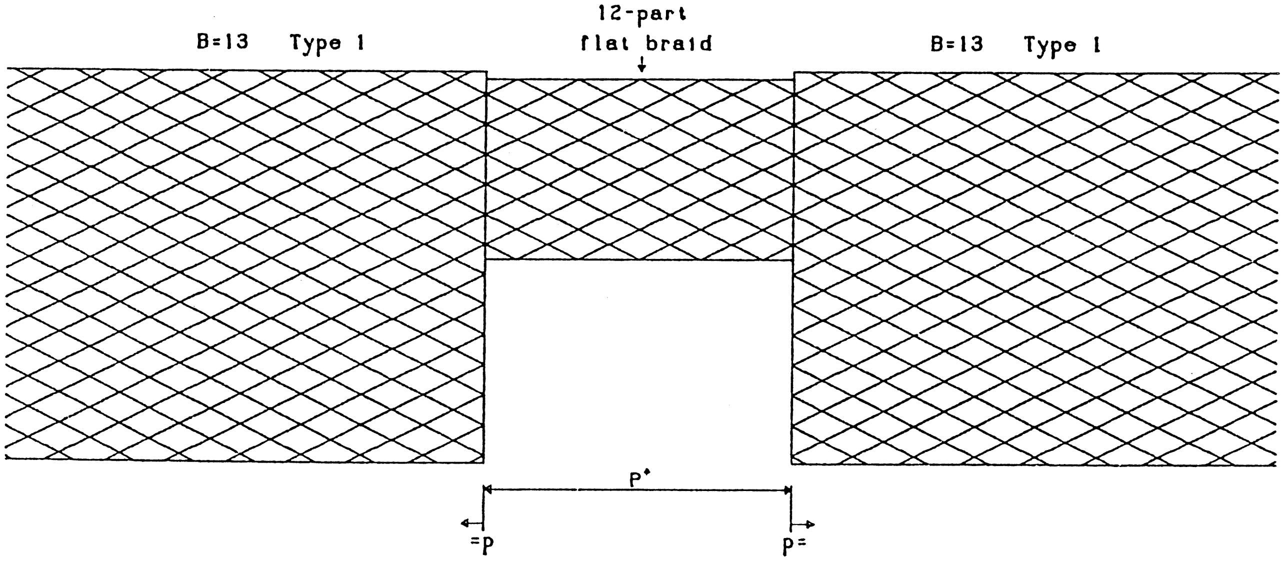
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



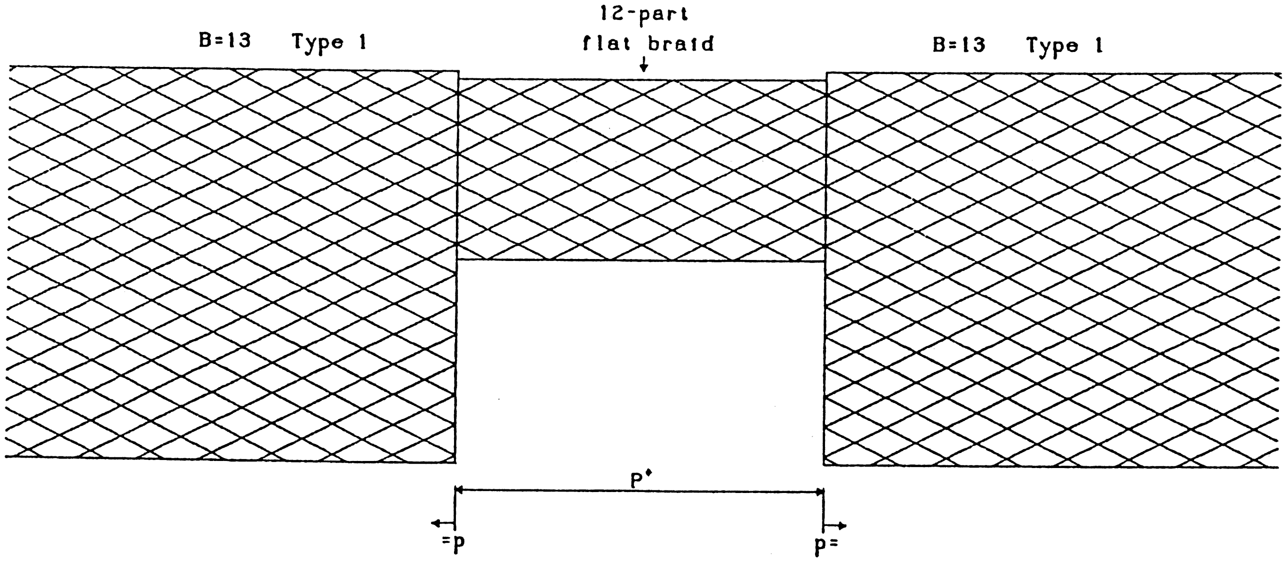
NO 1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



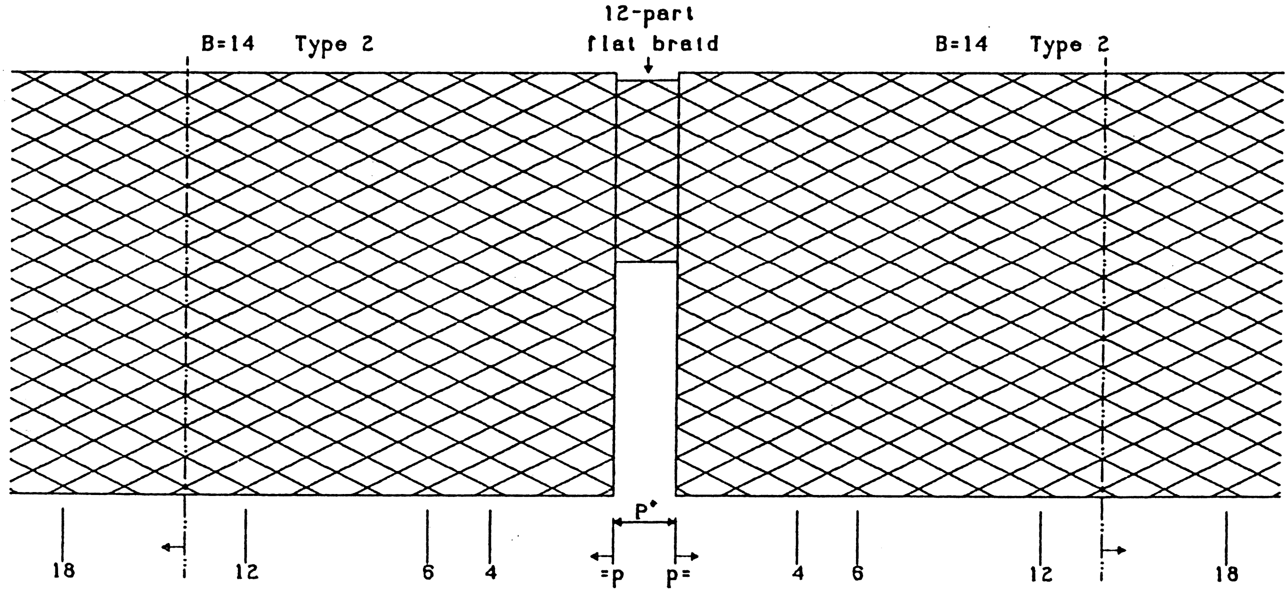
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



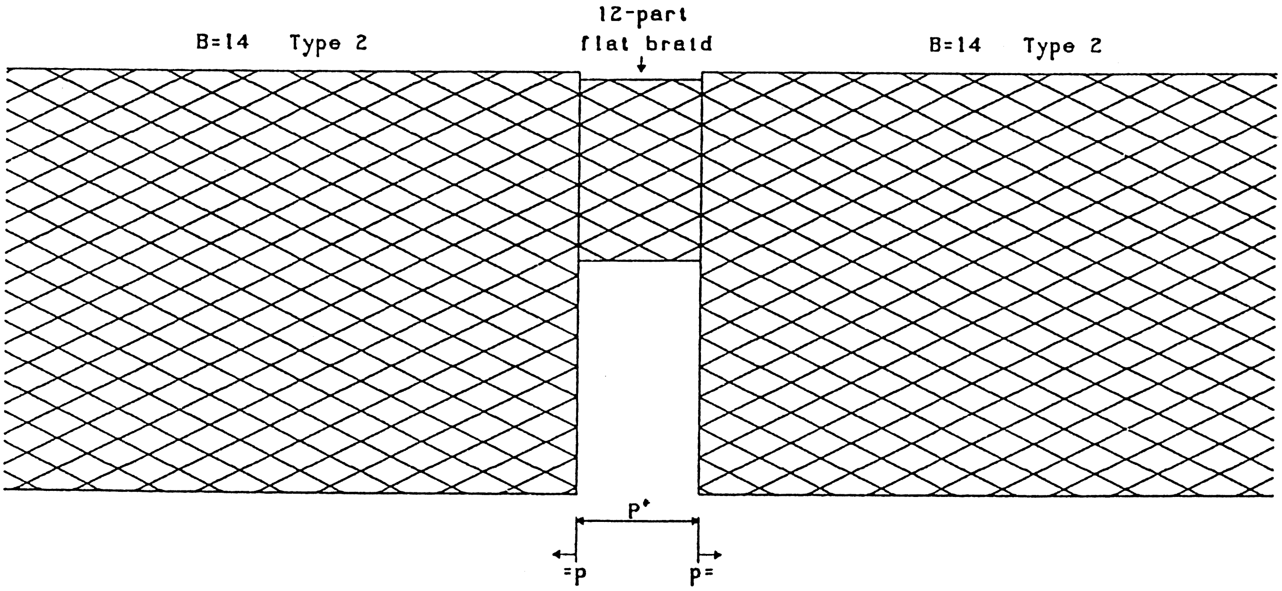
NO 1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



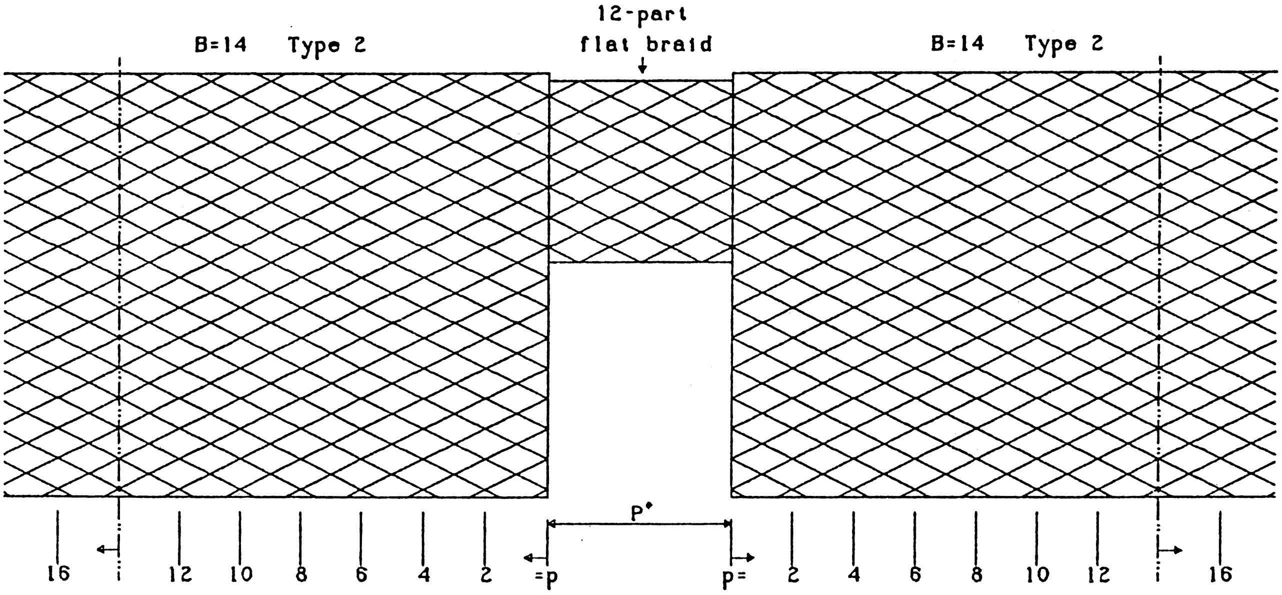
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



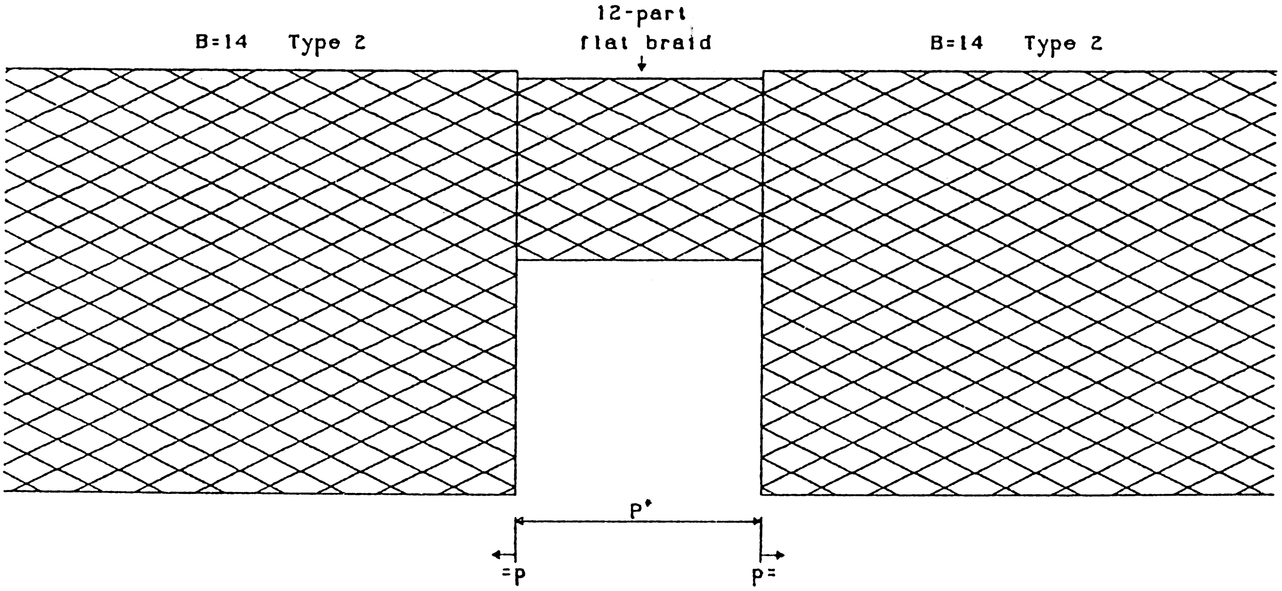
1-string solutions for $P^{*}=12n+2$ with n=0.1.2.3....



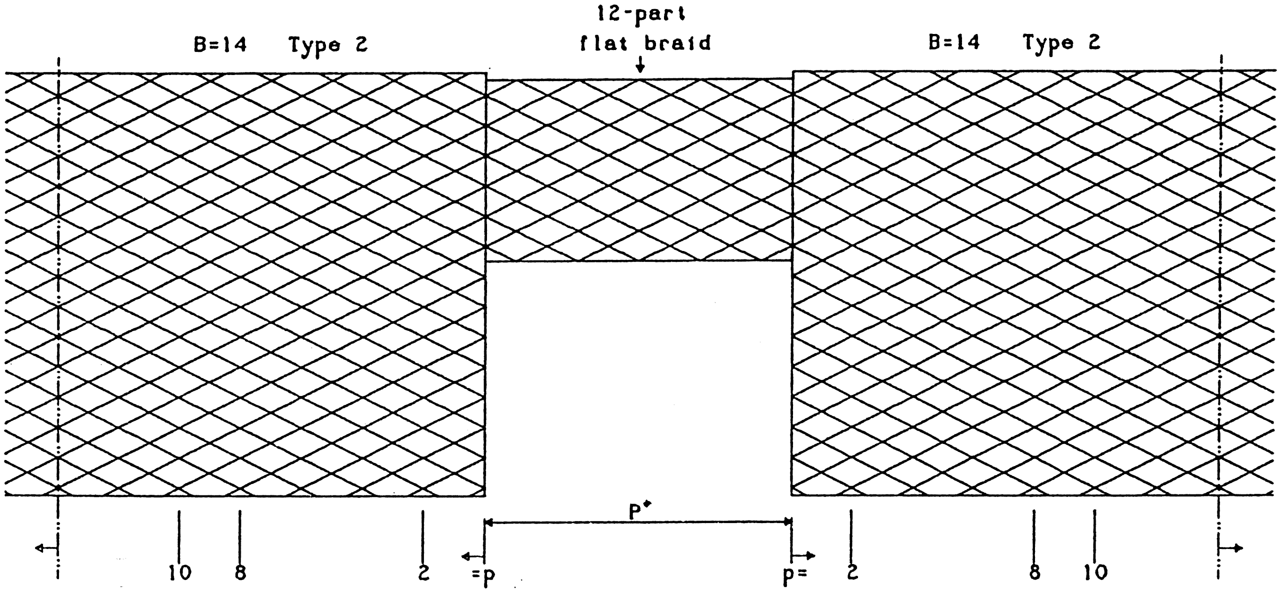
NO 1-string solutions for $P^{*}=12n+4$ with n=0.1.2.3....



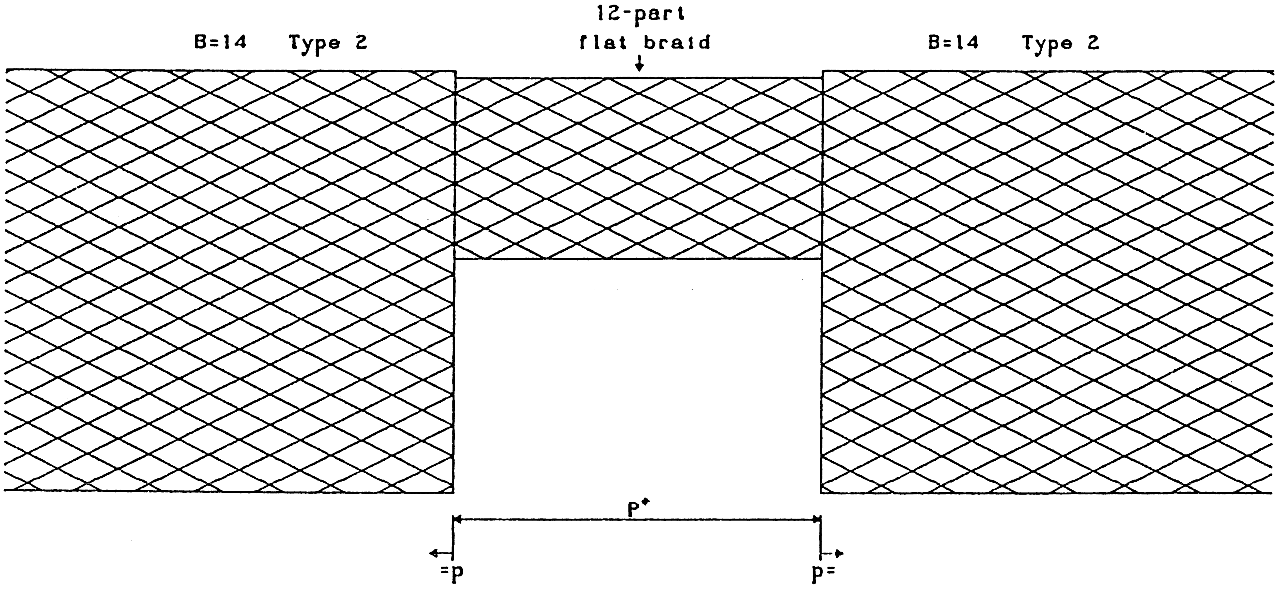
1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



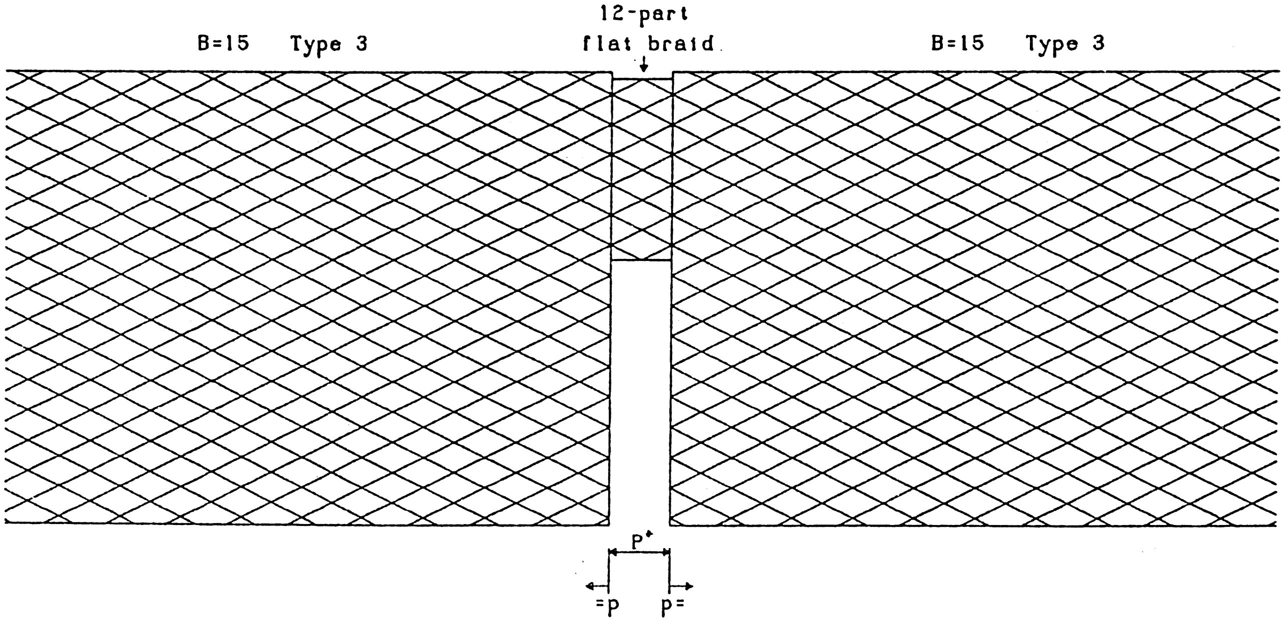
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



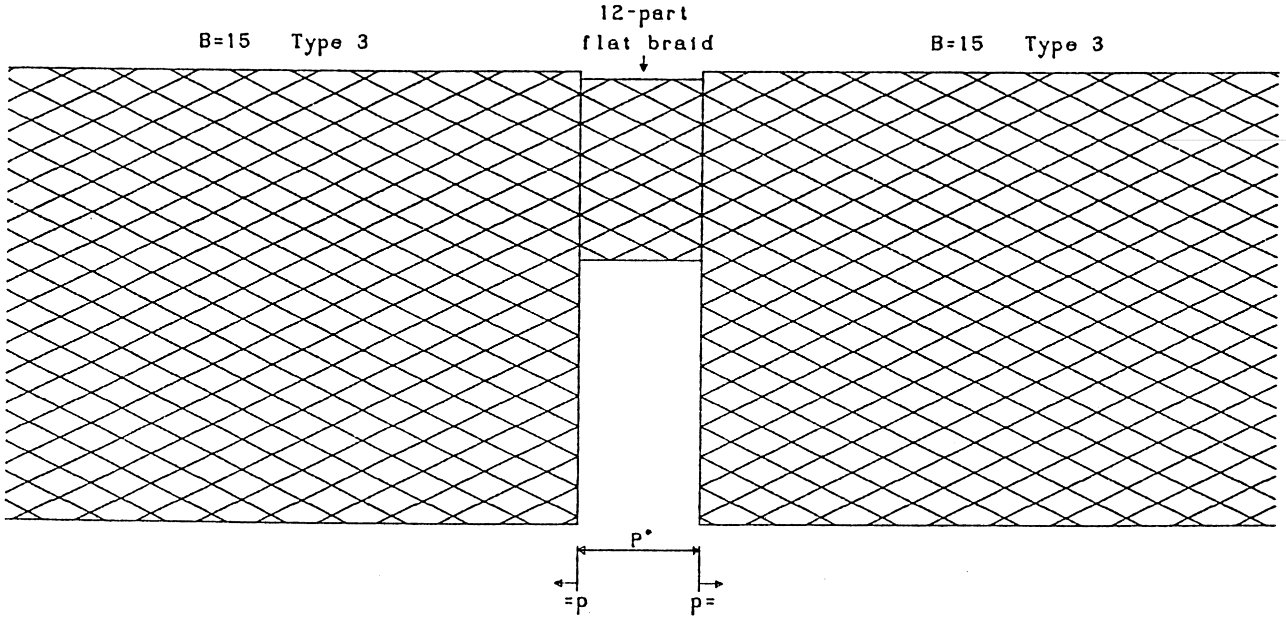
1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



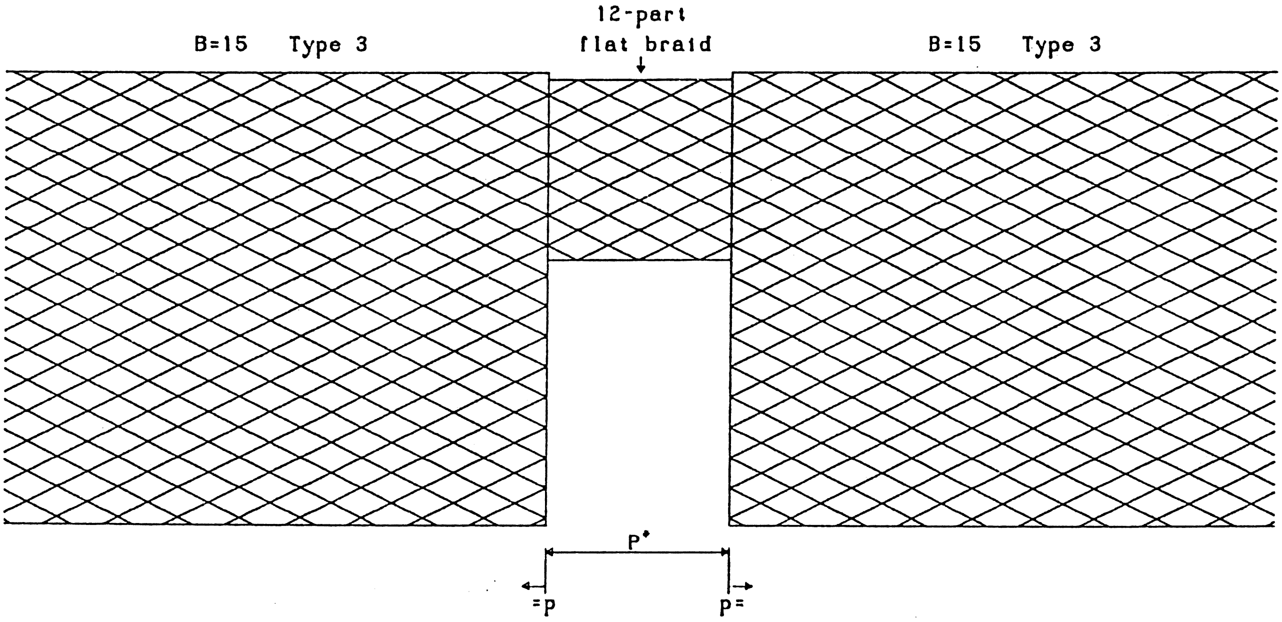
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



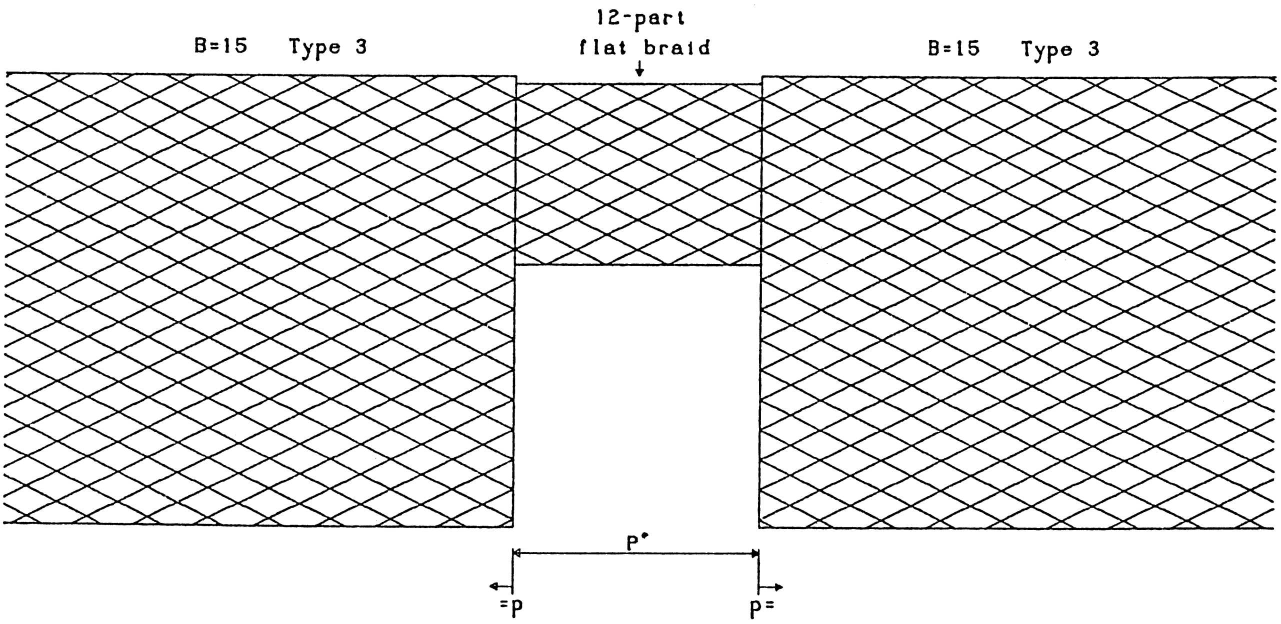
NO 1-string solutions for P*=12n+2 with n=0.1.2.3....



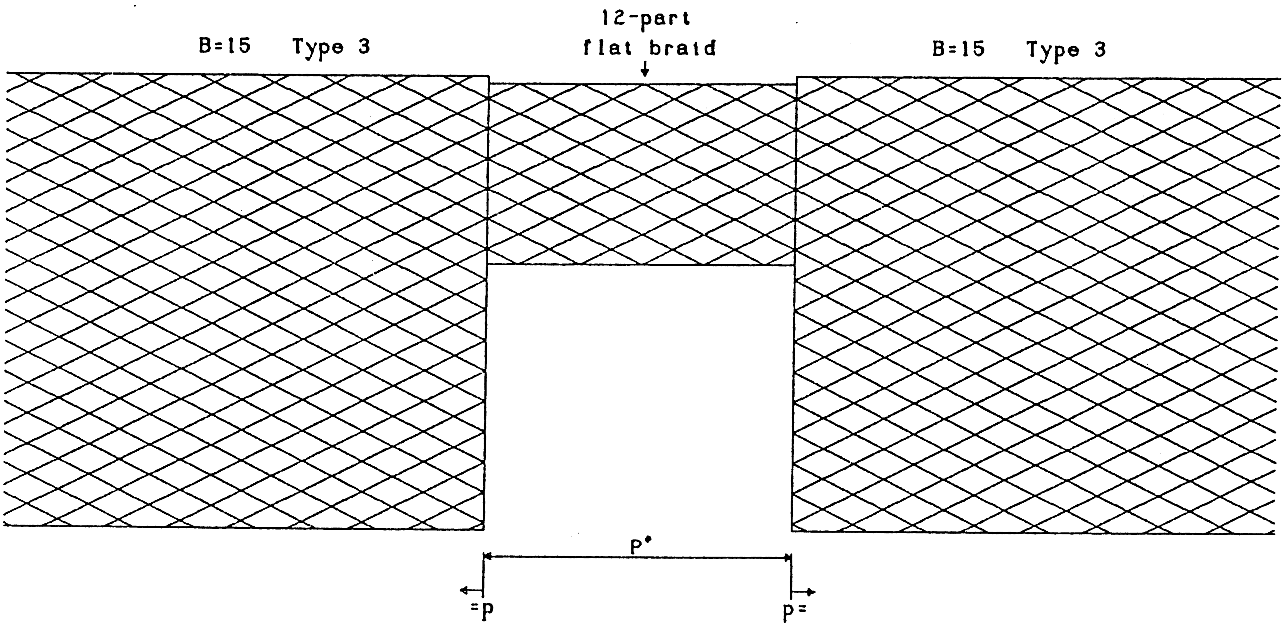
NO 1-string solutions for P*=12n+4 with n=0.1.2.3....



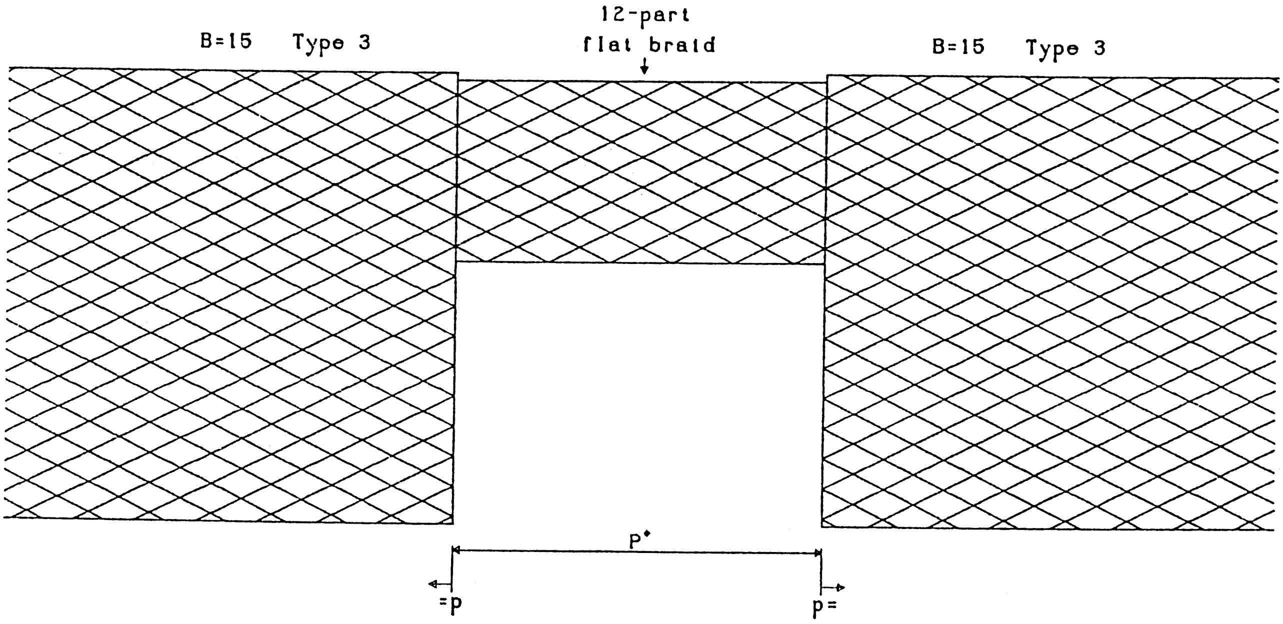
NO 1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



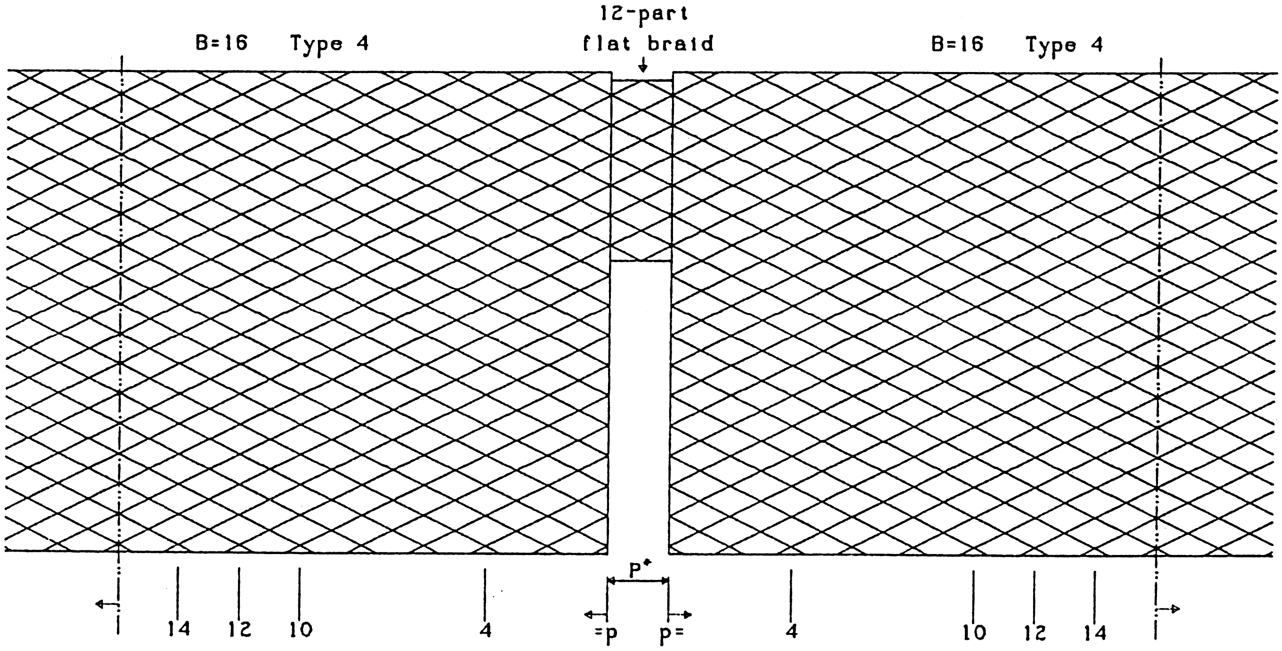
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



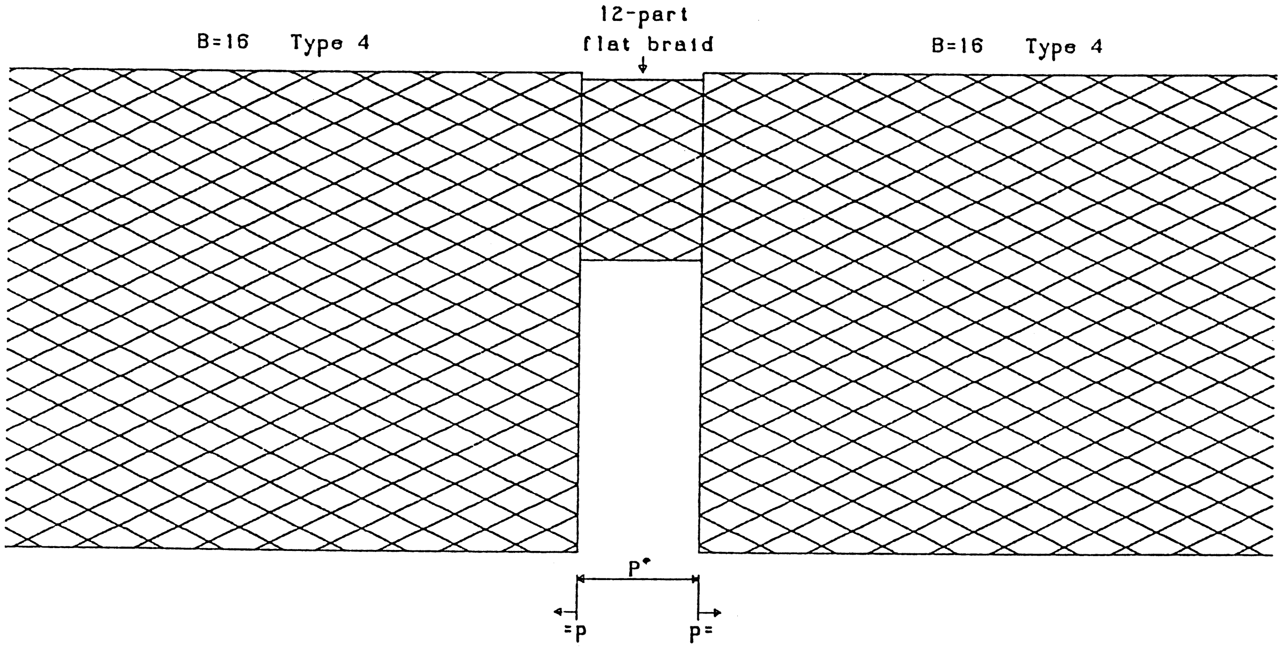
NO 1-string solutions for $P^* = 12n + 10$ with n=0,1,2,3....



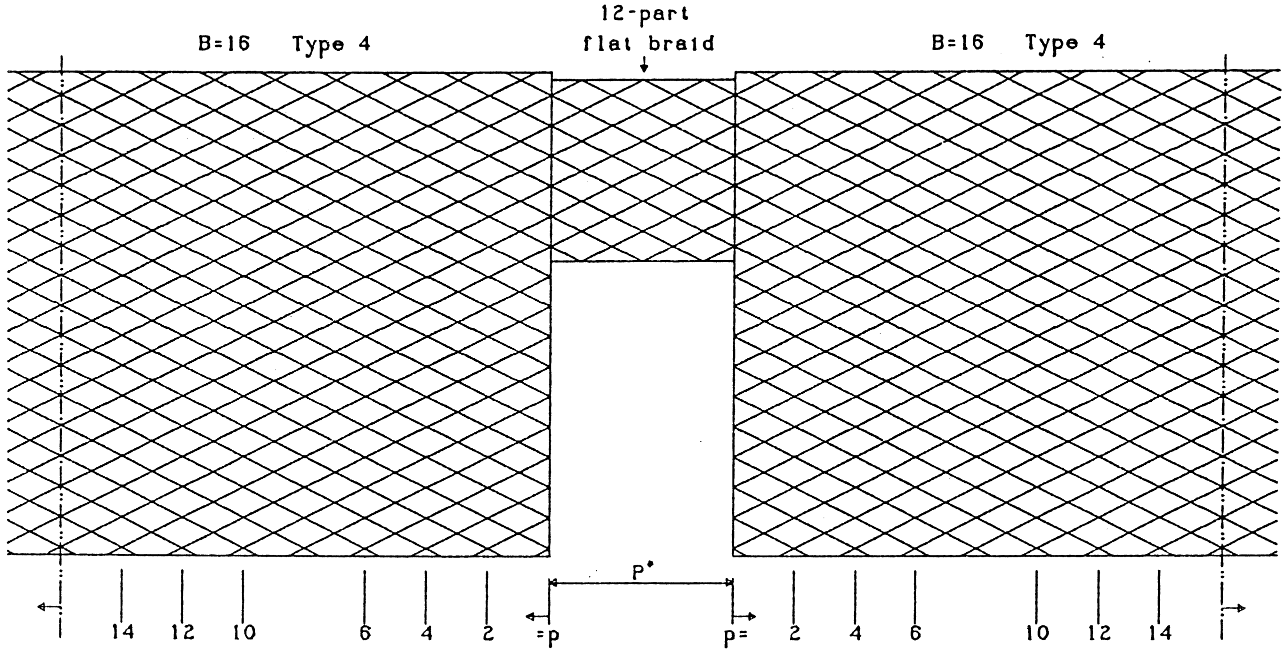
NO 1-string solutions for $P^* = 12n + 12$ with n=0,1,2,3....



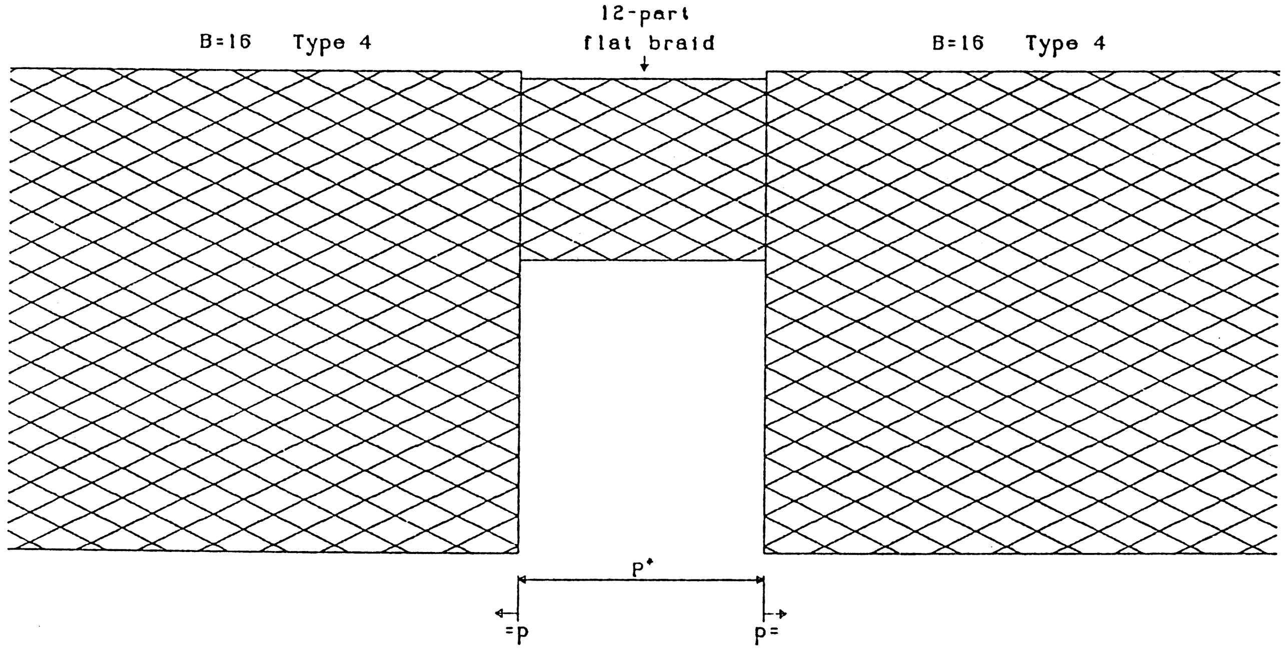
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



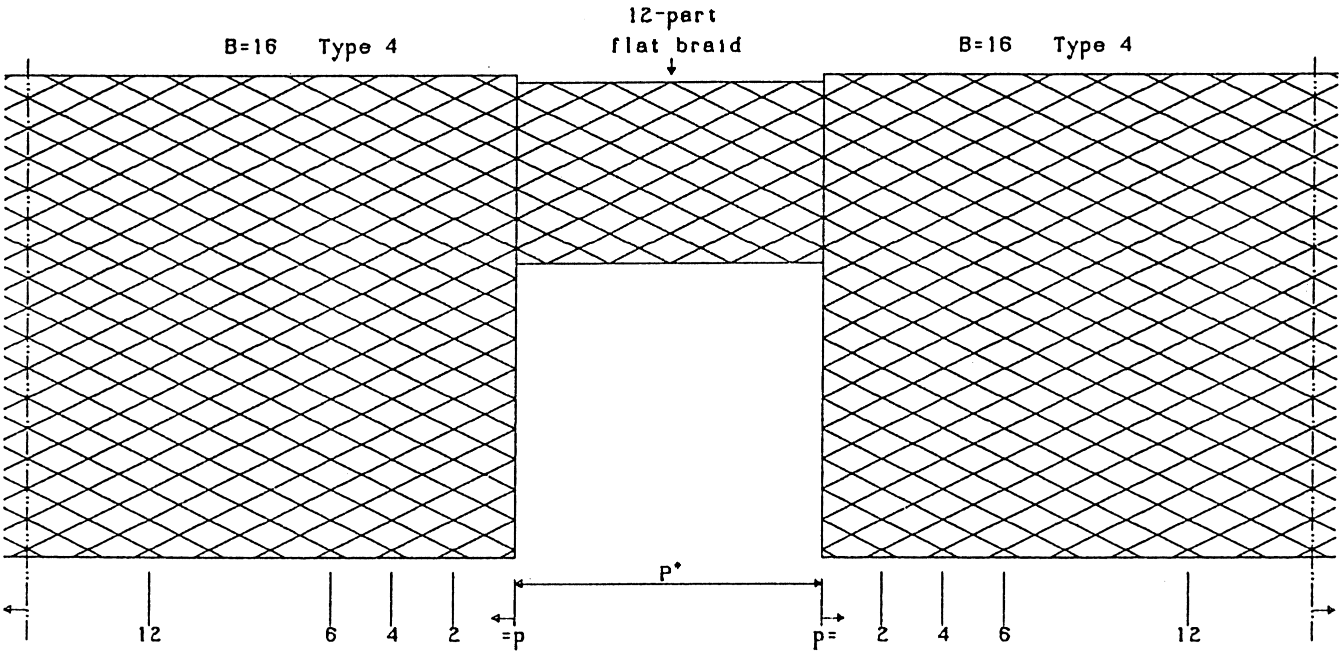
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



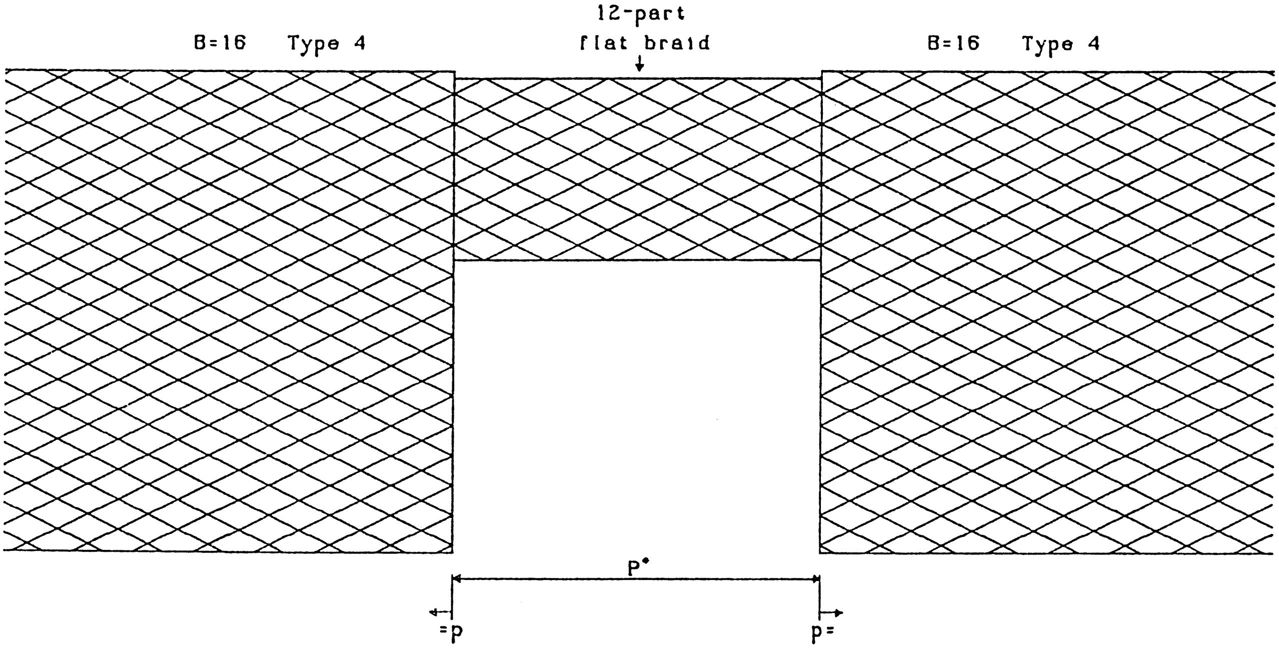
1-string solutions for $P^{*}=12n+6$ with n=0.1.2.3....



NO 1-string solutions for $P^{*}=12n+8$ with n=0.1.2.3....



1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....

pp. 96 — 122

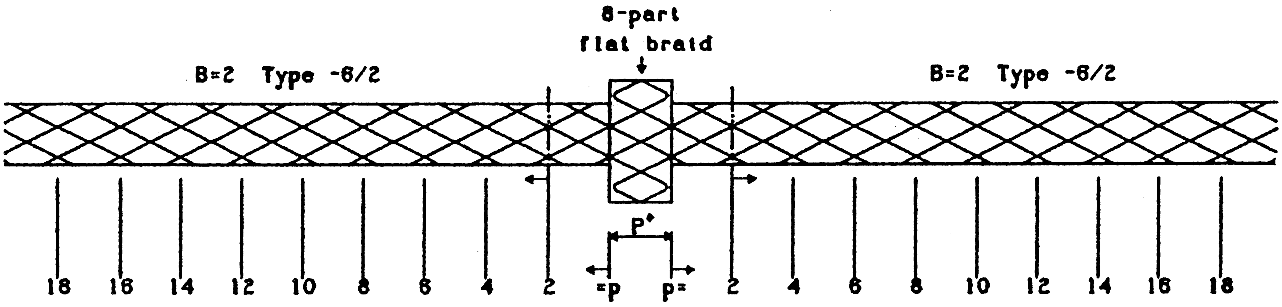
Basic Regular $C_1F^*C_1$ Knots

with

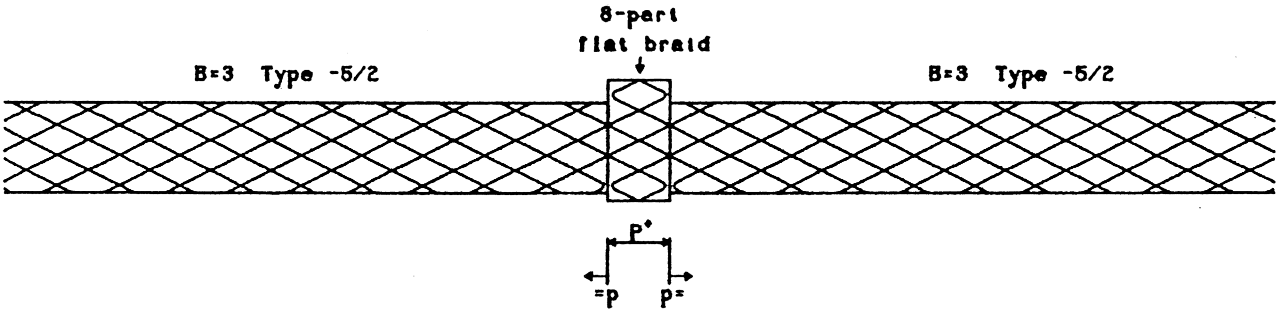
$2x = p_F - 2$

$p_F = 8, 10, 12, 14.$

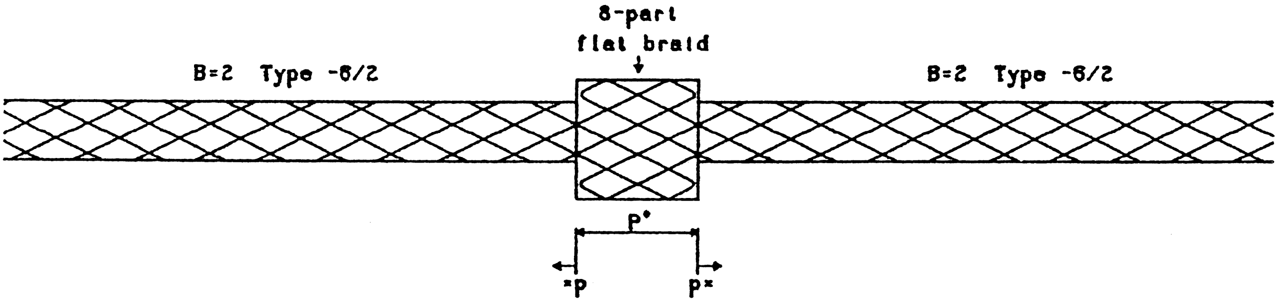
$$\frac{p_F}{2} - 2 \leq B \leq p_F - 5.$$



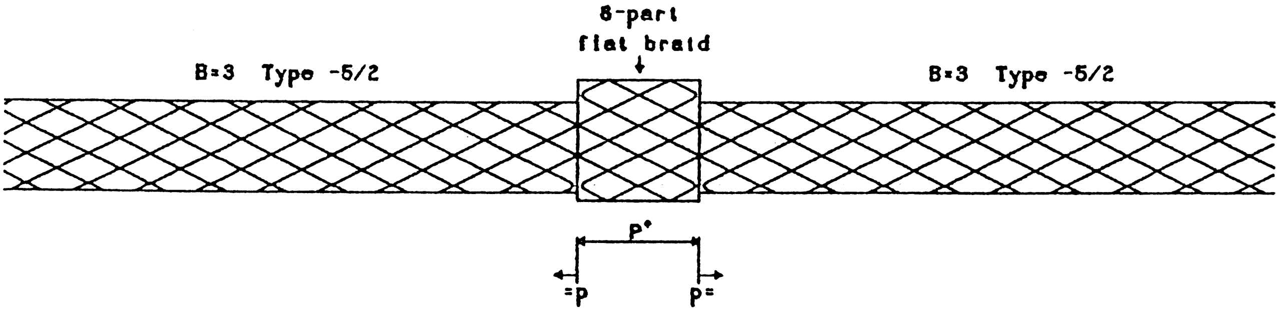
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



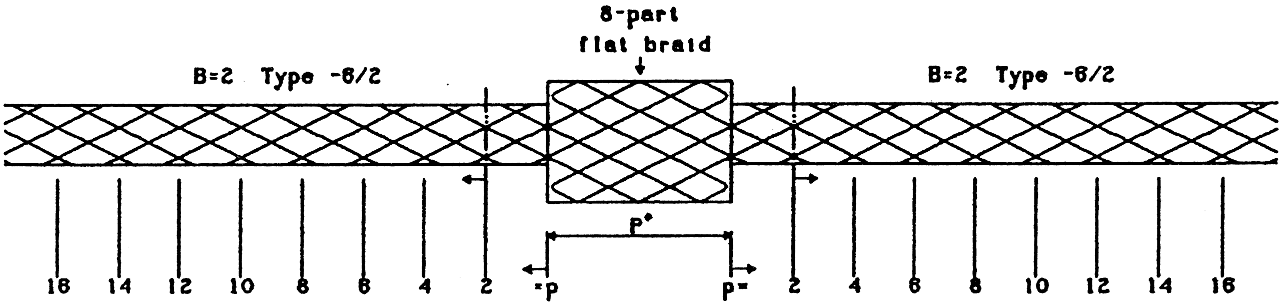
NO 1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



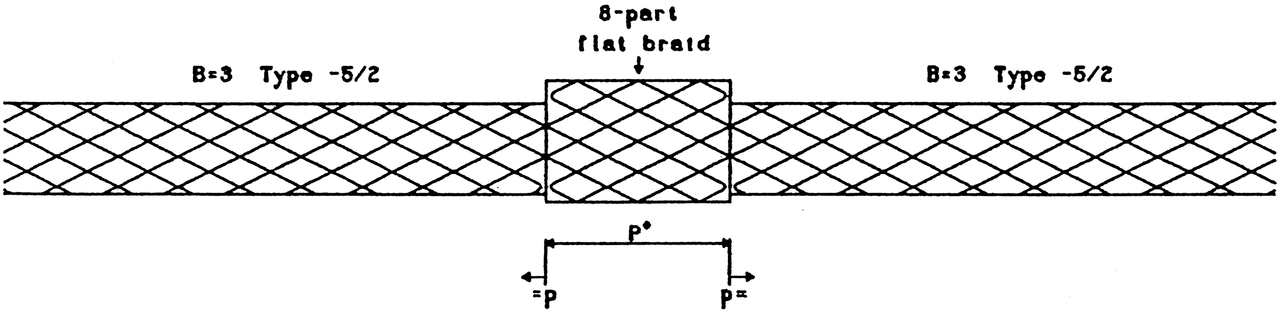
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



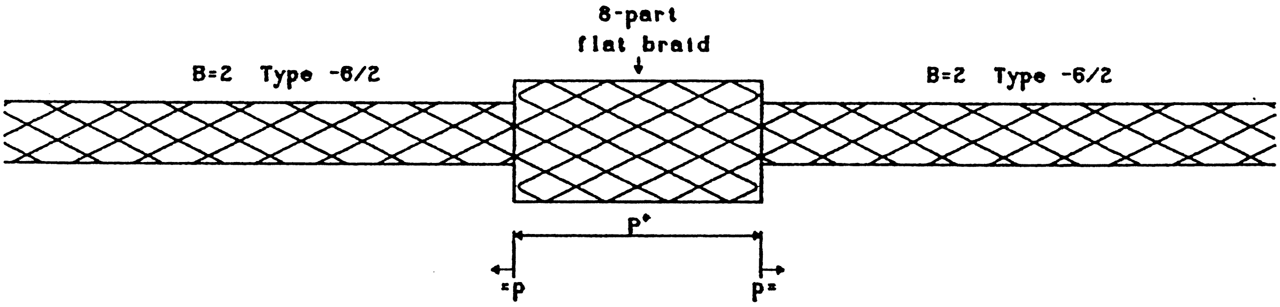
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



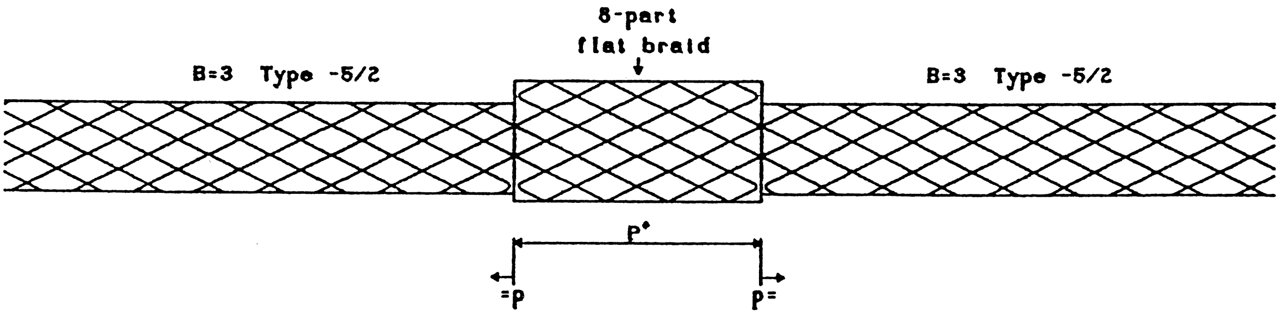
1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



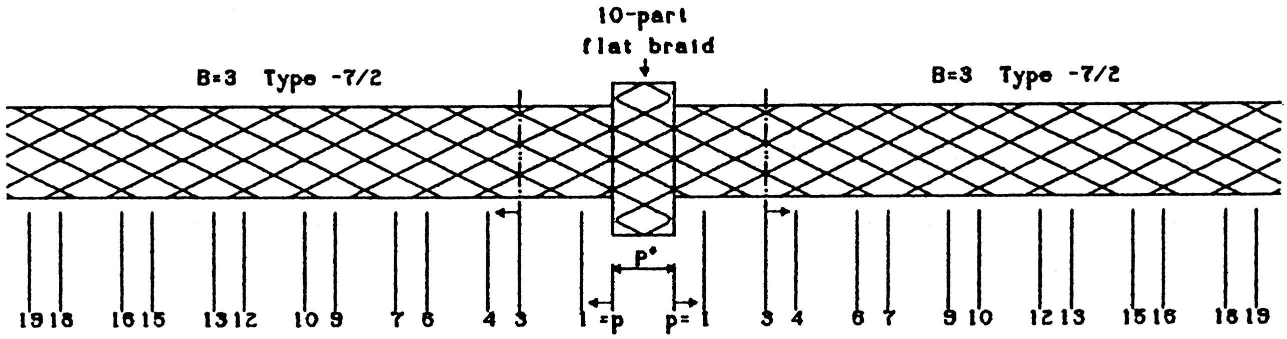
NO 1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



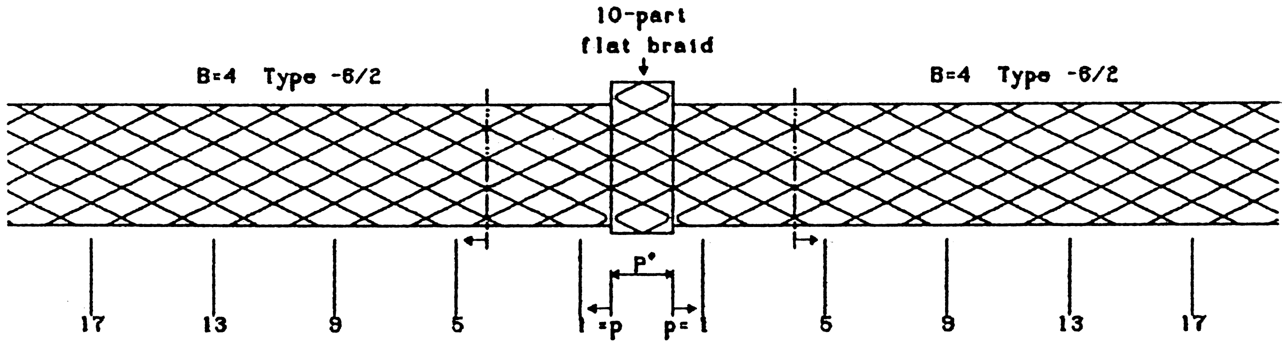
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



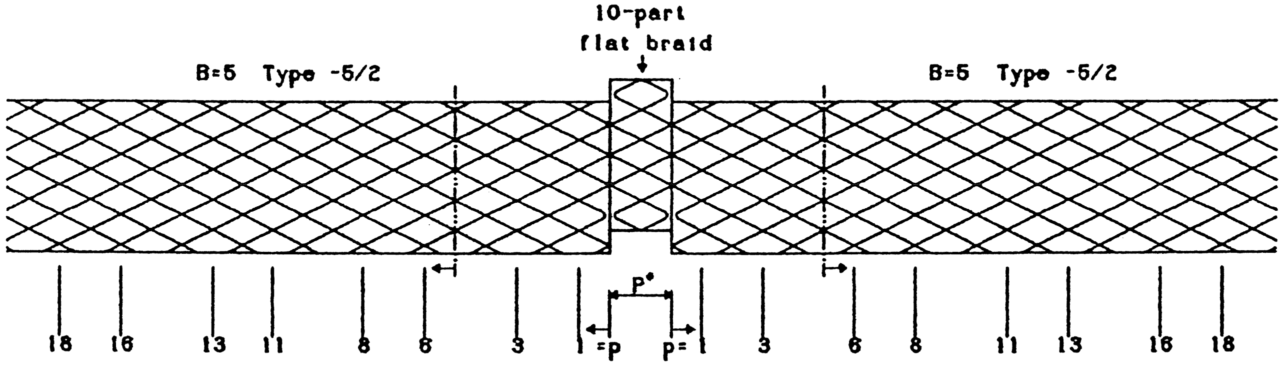
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....


10-part
flat braid
B=3 Type -7/2
B=3 Type -7/2
P*
19 18 16 15 13 12 10 9 7 6 4 3 1 =p p= 1 3 4 6 7 9 10 12 13 15 16 18 19

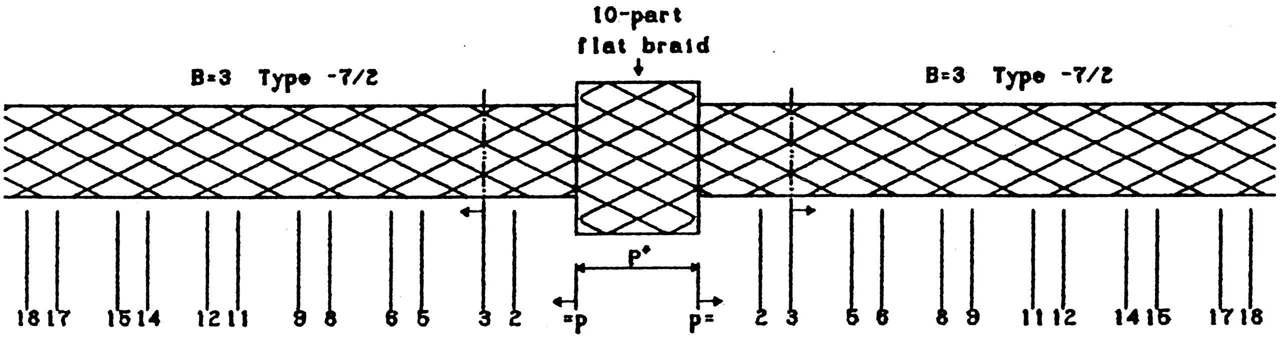
1-string solutions for $P^*=10n+2$ with $n=0.1.2.3....$



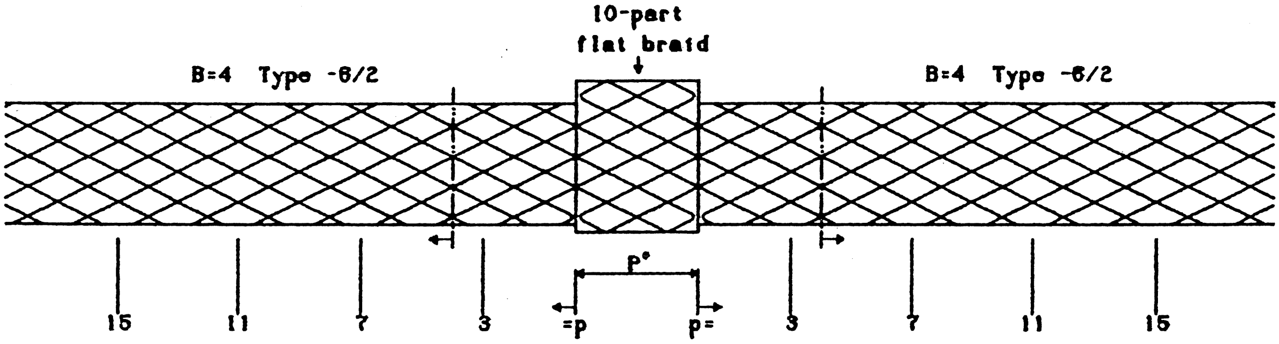
1-string solutions for $P^*=6n+2$ with $n=0.1.2.3....$



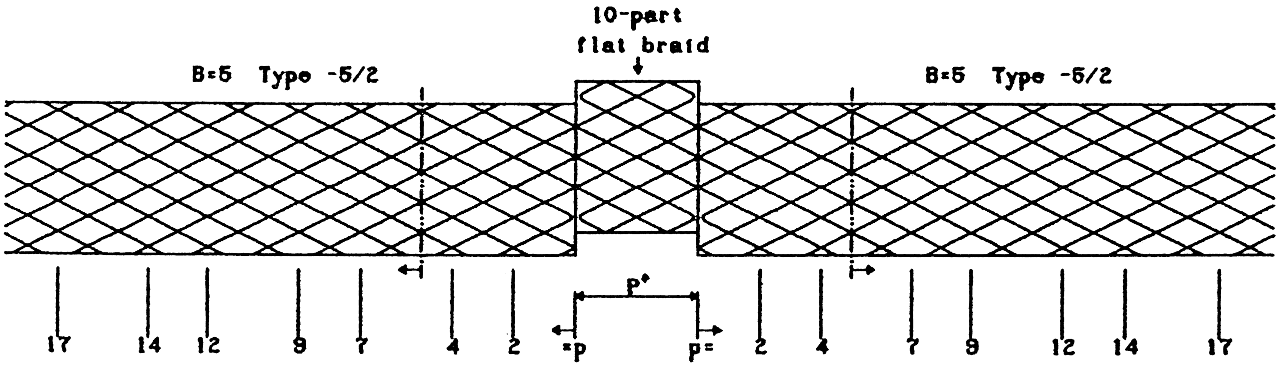
1-string solutions for $P^*=10n+2$ with $n=0.1.2.3....$


10-part
flat braid
B=3 Type -7/2
B=3 Type -7/2
P*
18 17 15 14 12 11 9 8 6 5 3 2 =p
p= 2 3 5 6 8 9 11 12 14 15 17 18

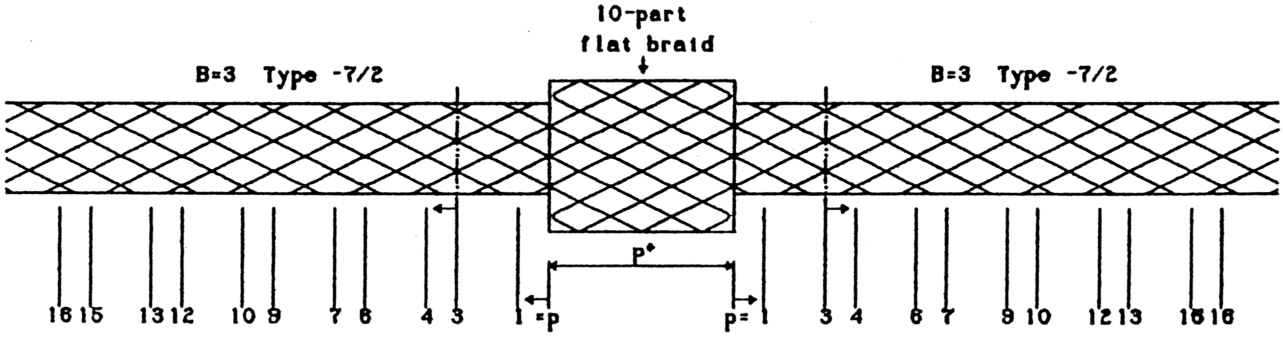
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



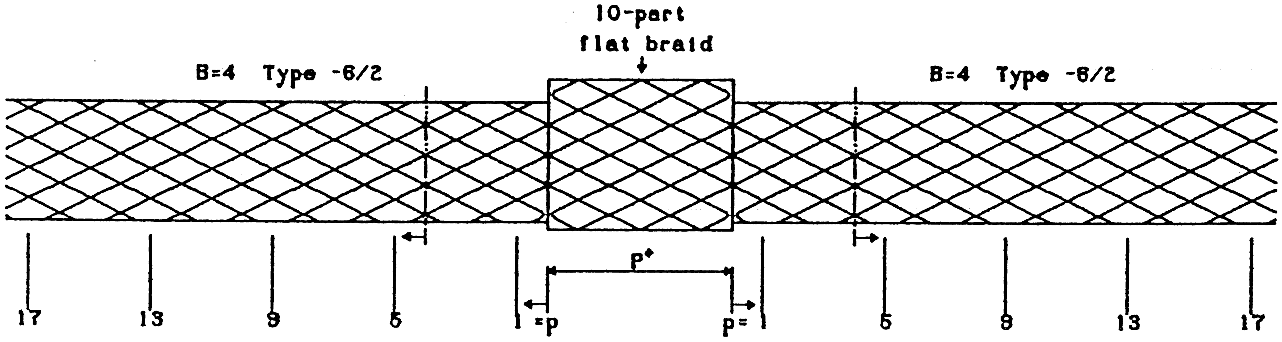
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



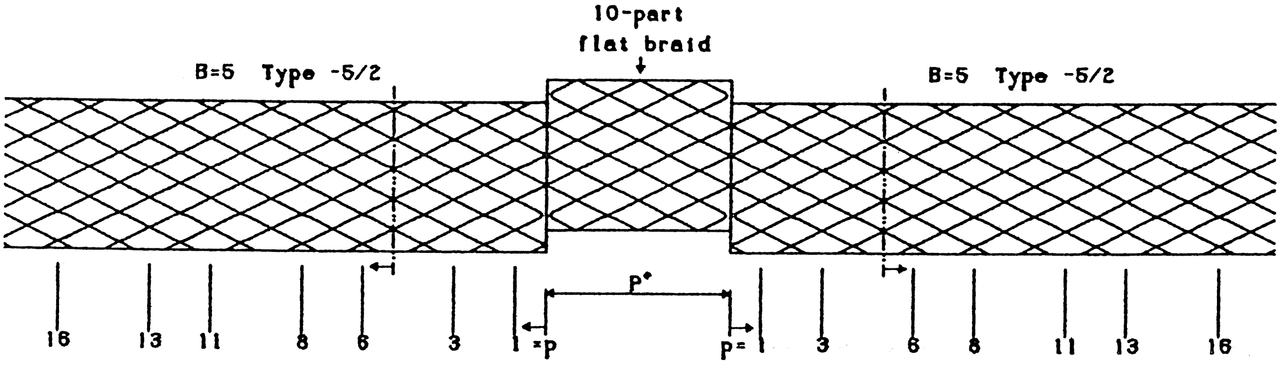
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



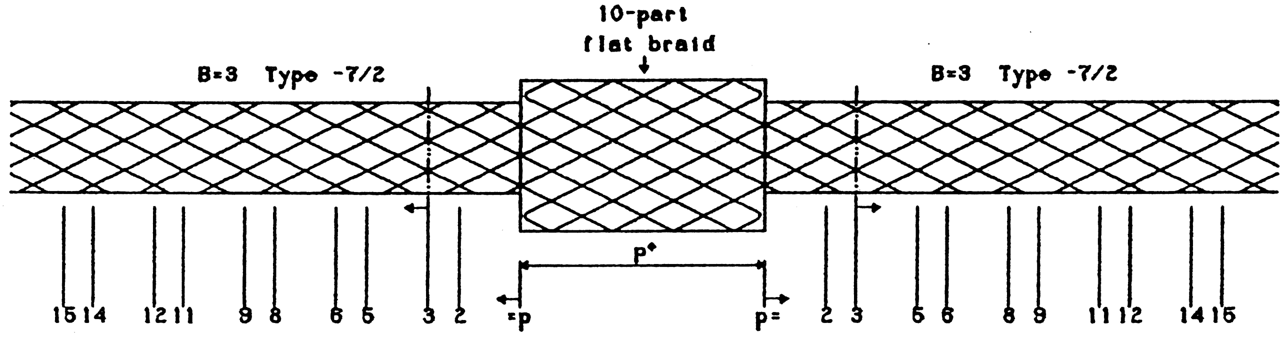
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



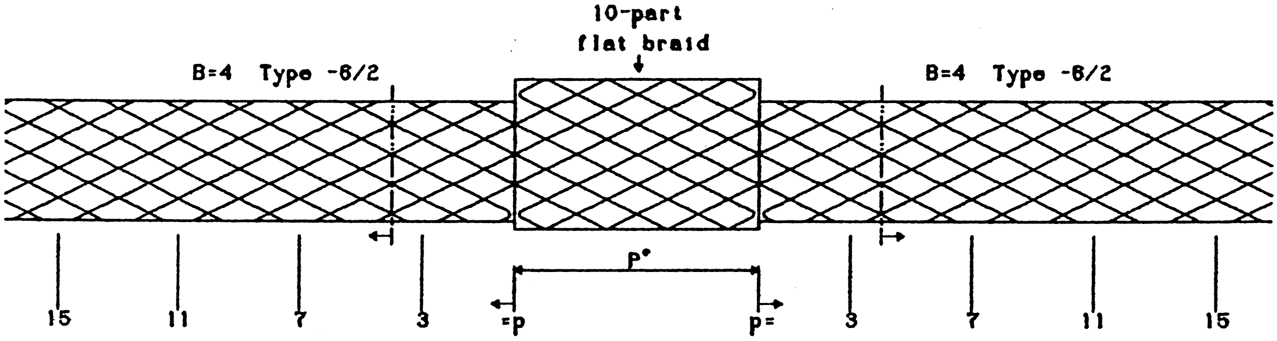
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



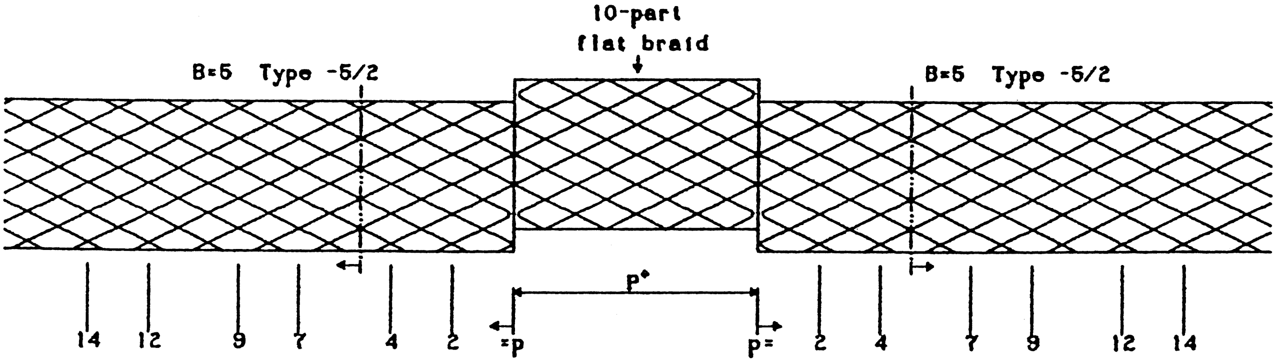
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



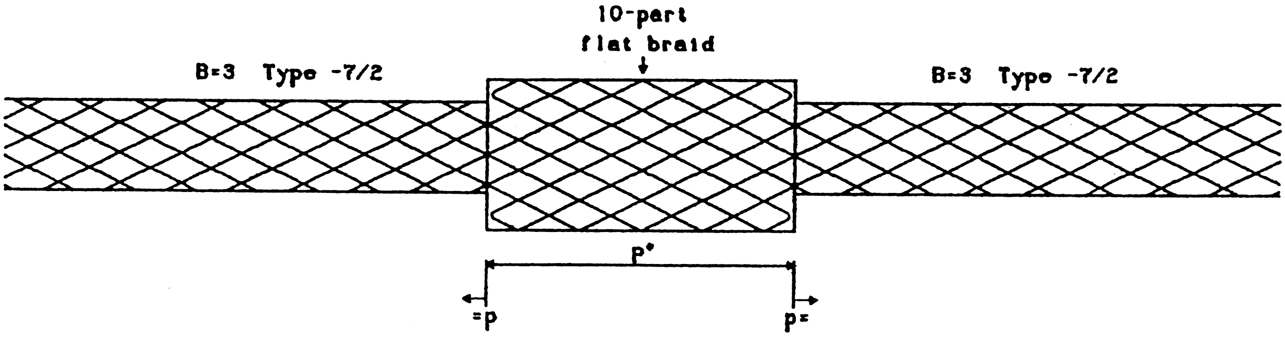
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



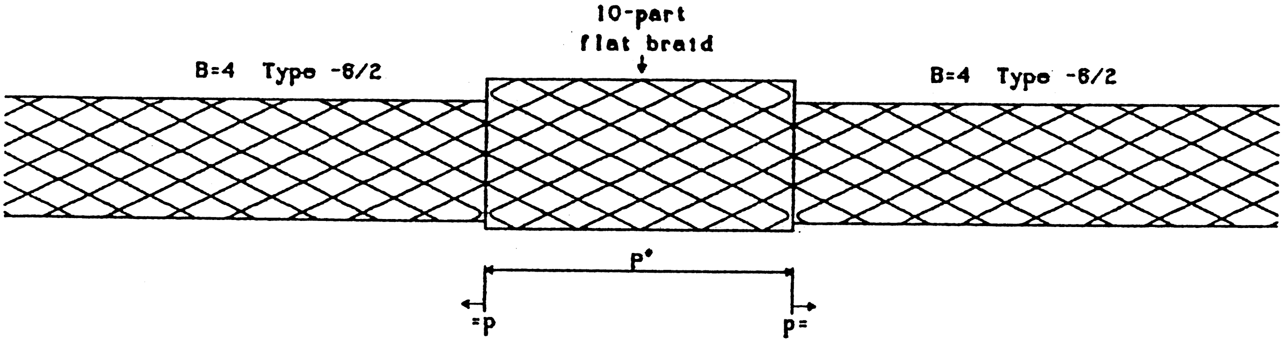
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



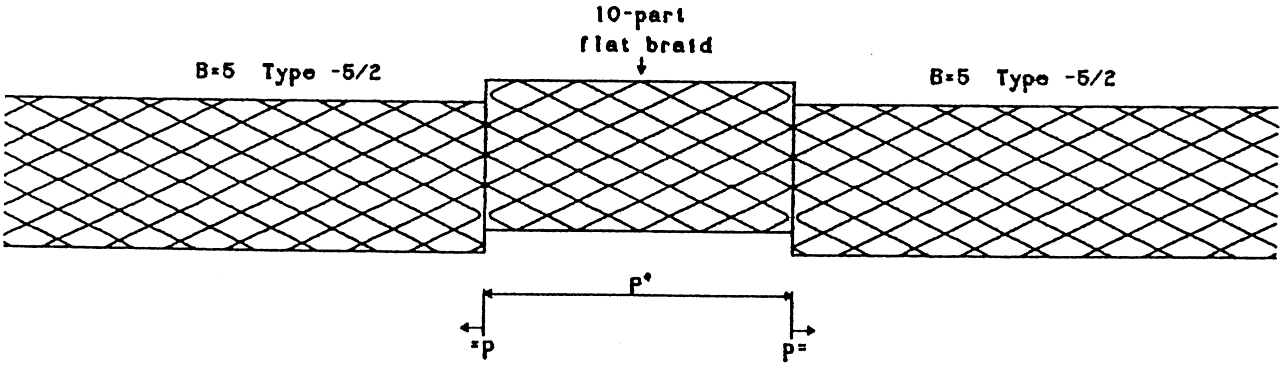
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



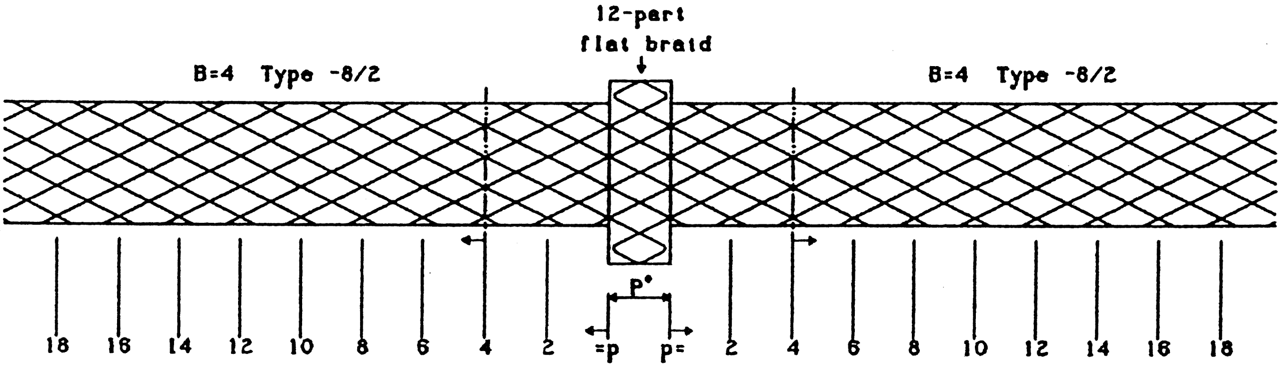
No 1-string solutions for P*=10n+10 with n=0.1.2.3....



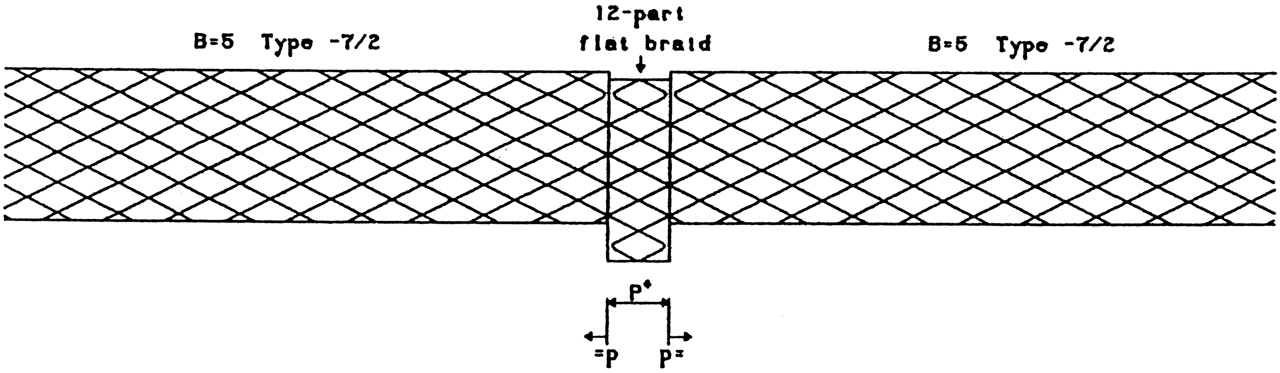
No 1-string solutions for P*=10n+10 with n=0.1.2.3....



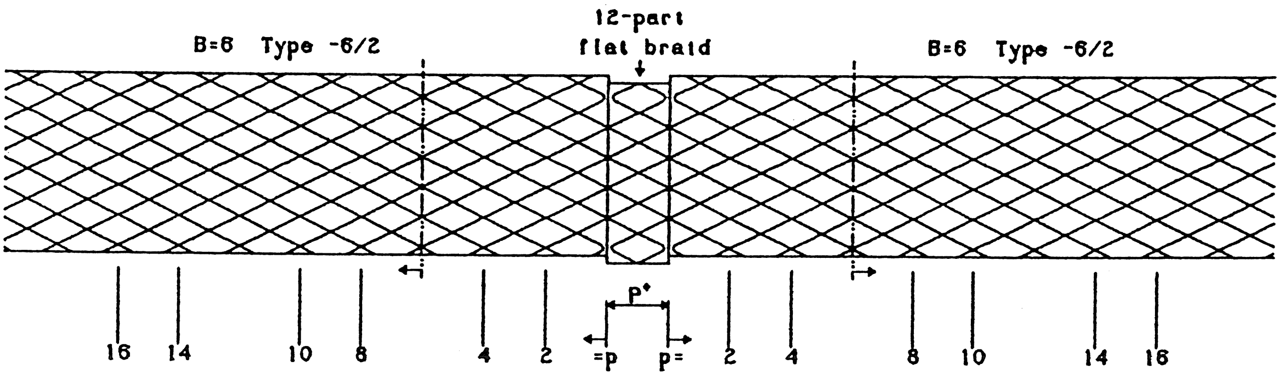
No 1-string solutions for P*=10n+10 with n=0.1.2.3....



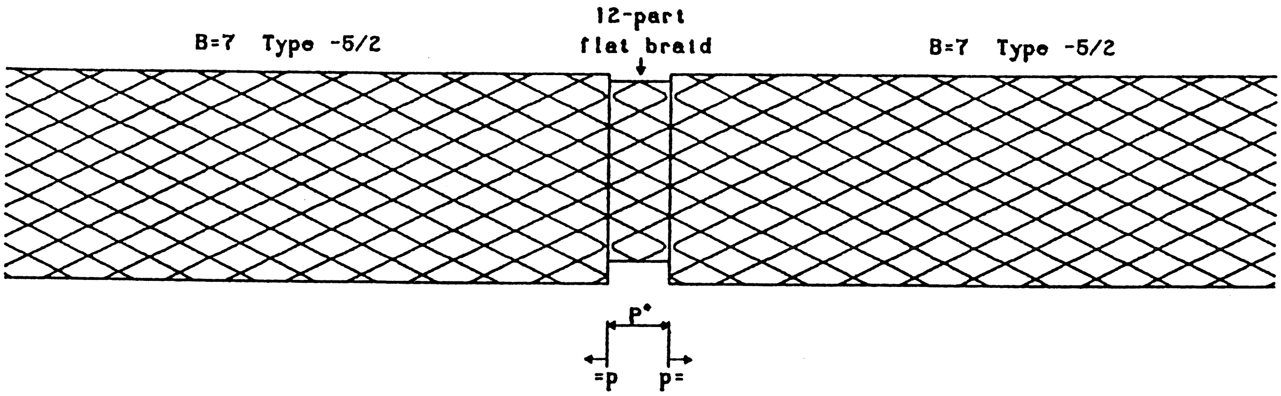
1-string solutions for $P^*=12n+2$ with $n=0.1.2.3....$



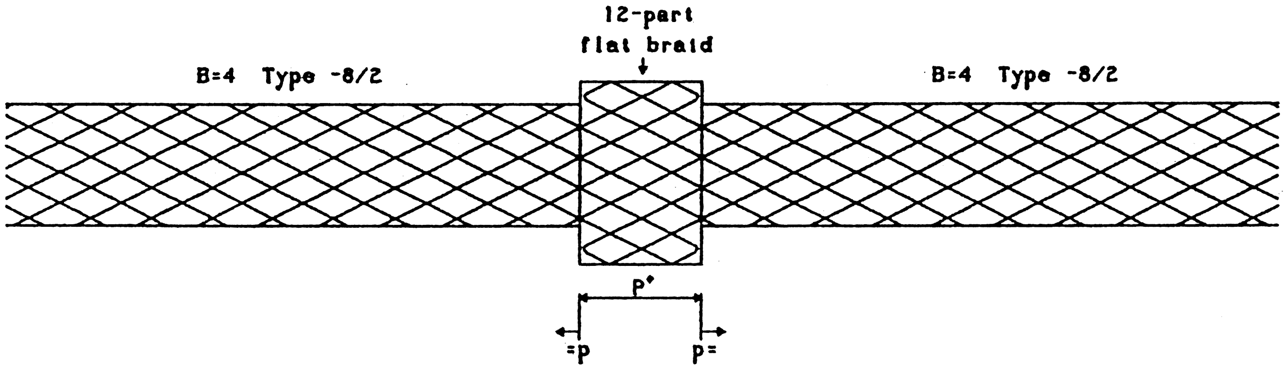
NO 1-string solutions for $P^*=12n+2$ with $n=0.1.2.3....$



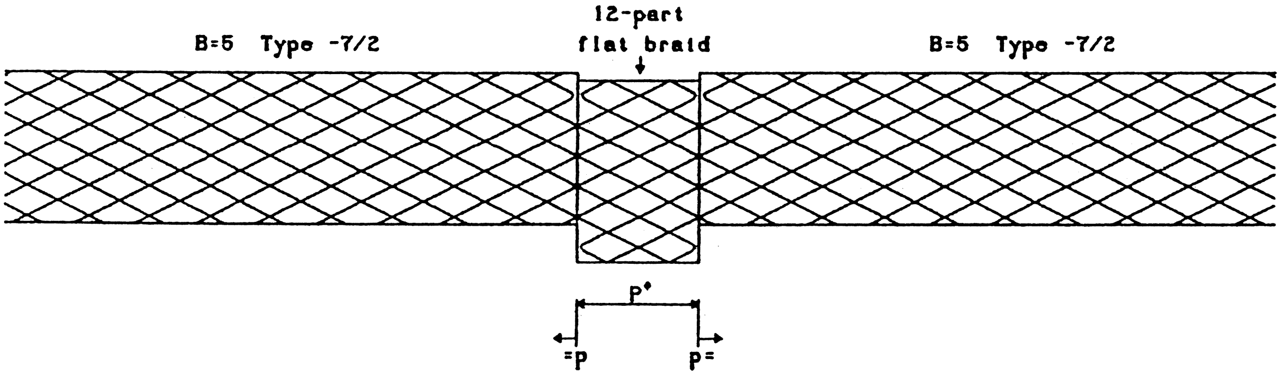
1-string solutions for $P^*=12n+2$ with $n=0.1.2.3....$



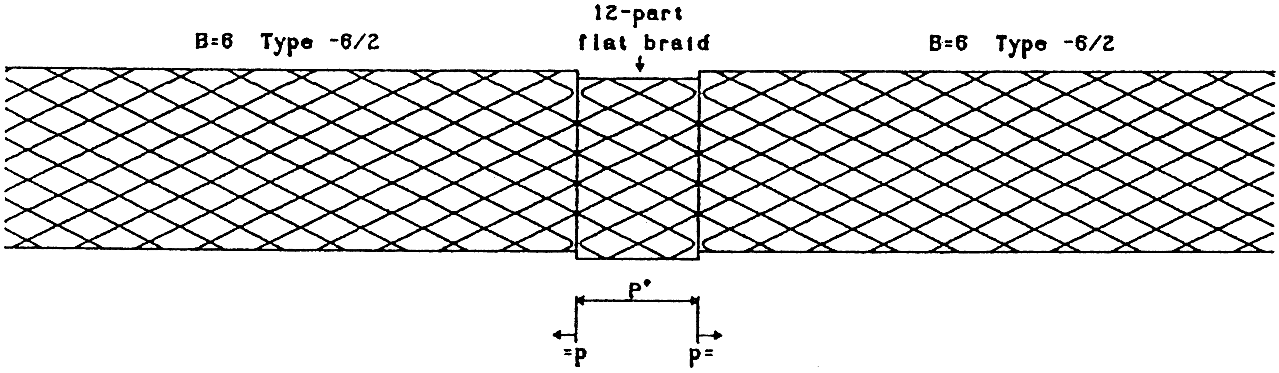
NO 1-string solutions for $P^*=12n+2$ with $n=0.1.2.3....$



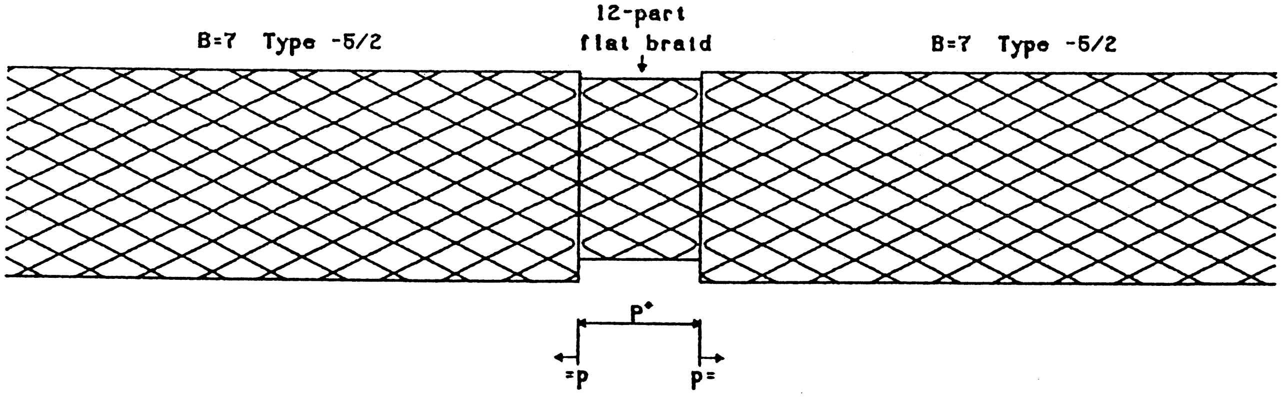
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



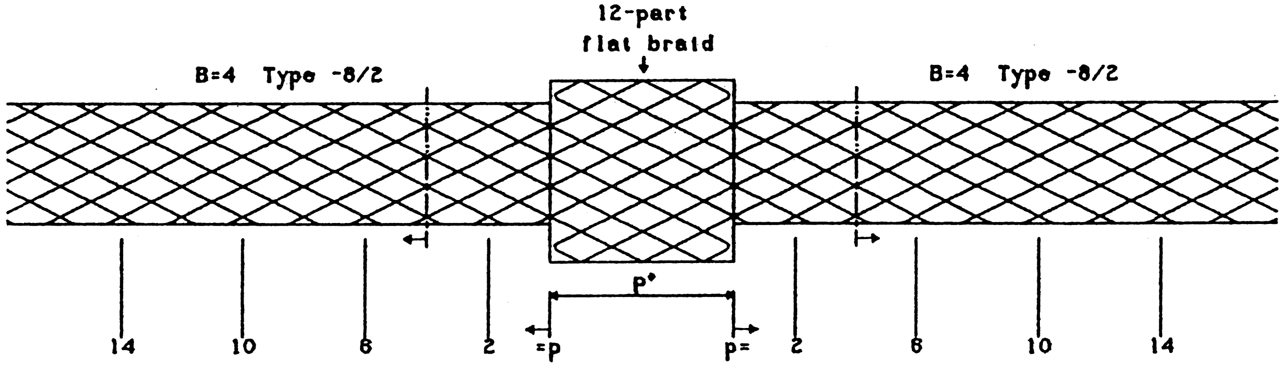
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



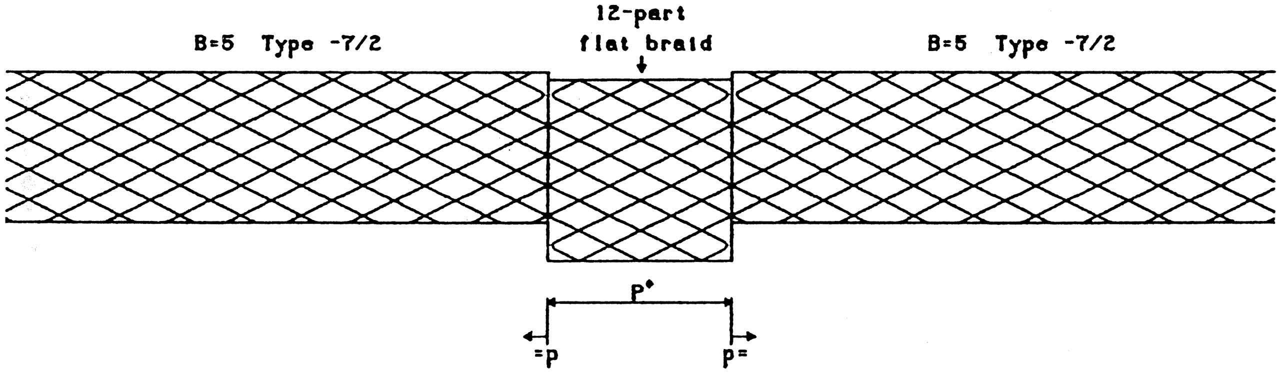
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



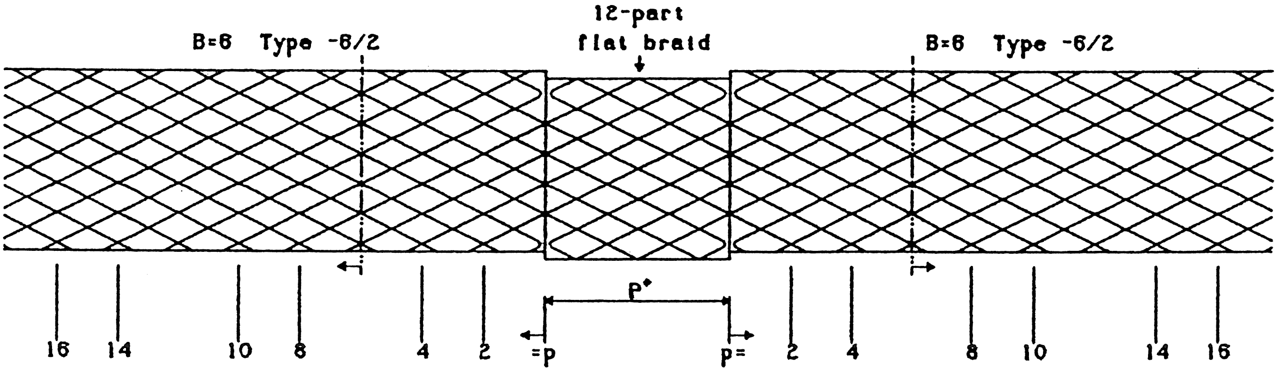
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



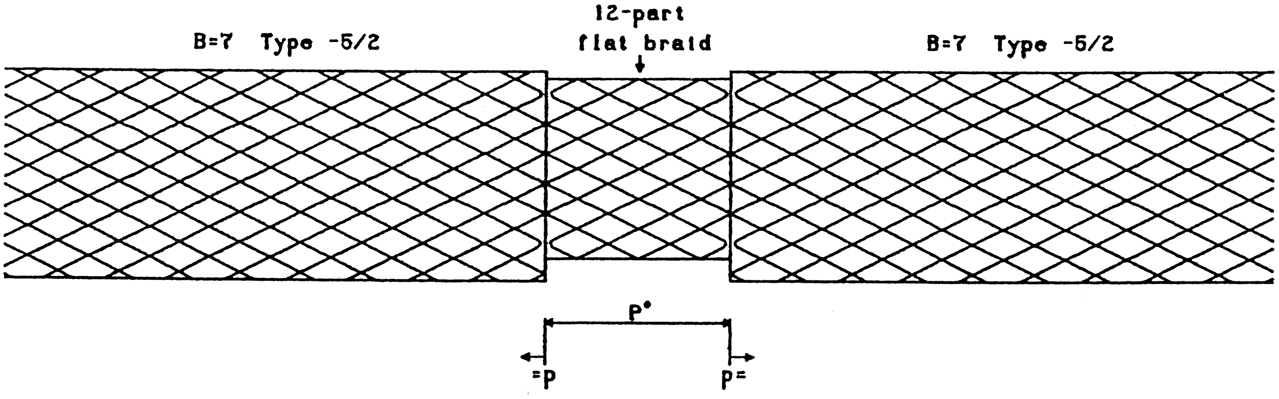
1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



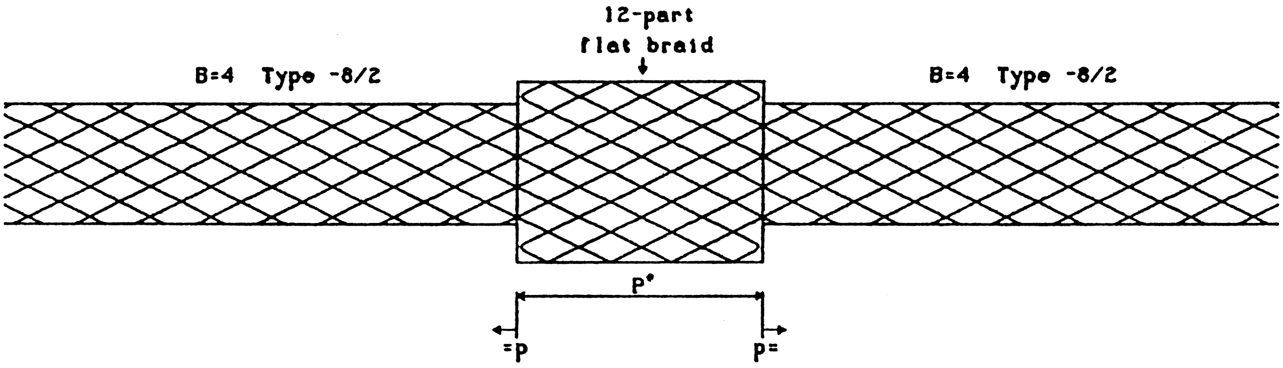
NO 1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



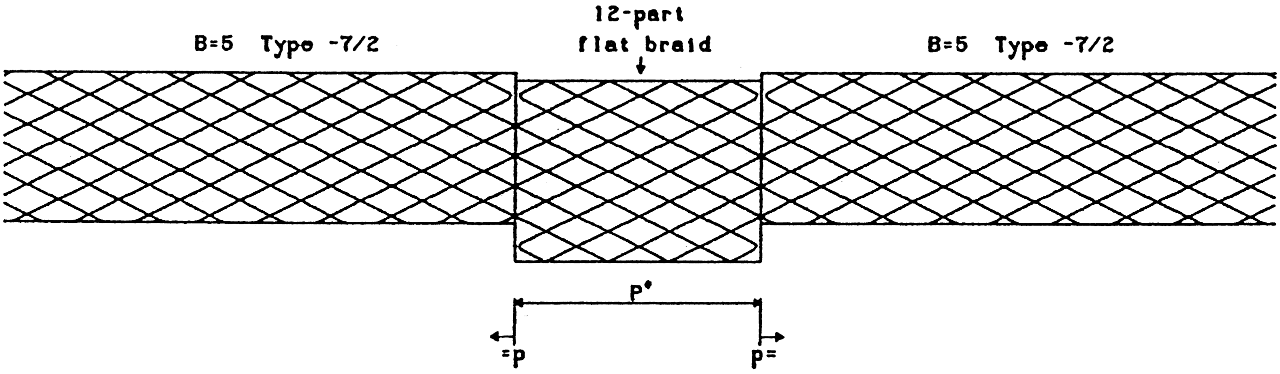
1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



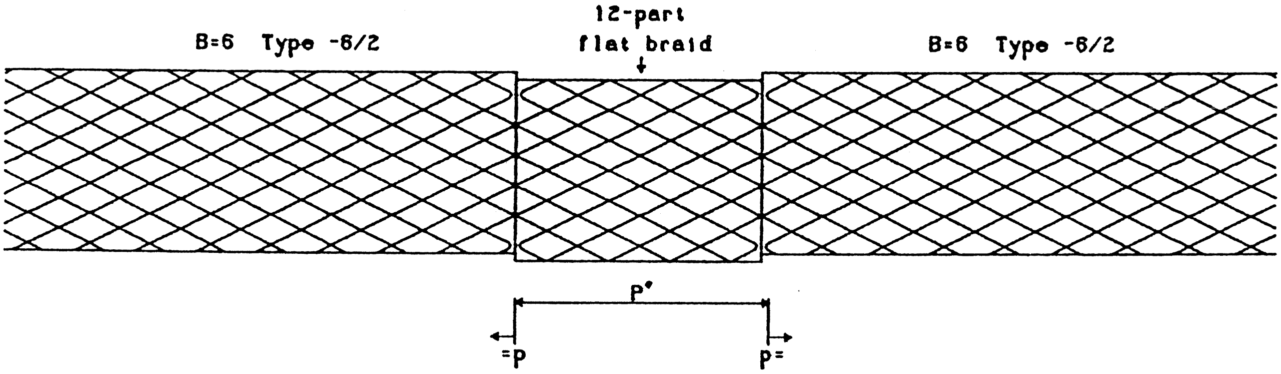
NO 1-string solutions for $P^*=12n+6$ with $n=0.1.2.3....$



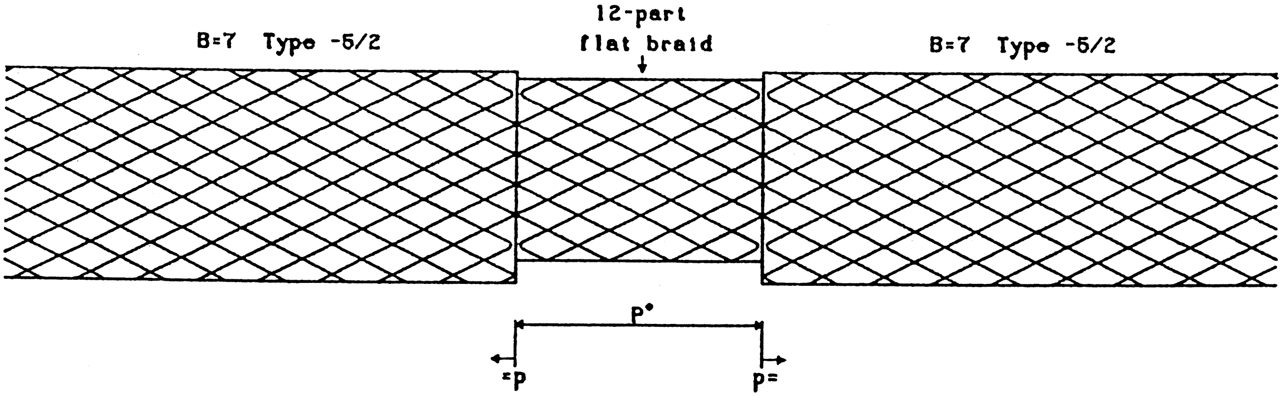
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



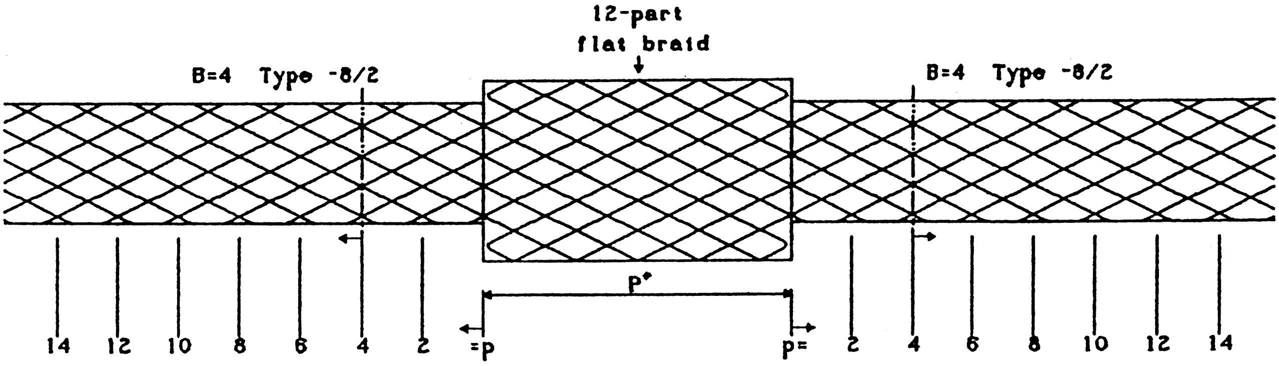
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



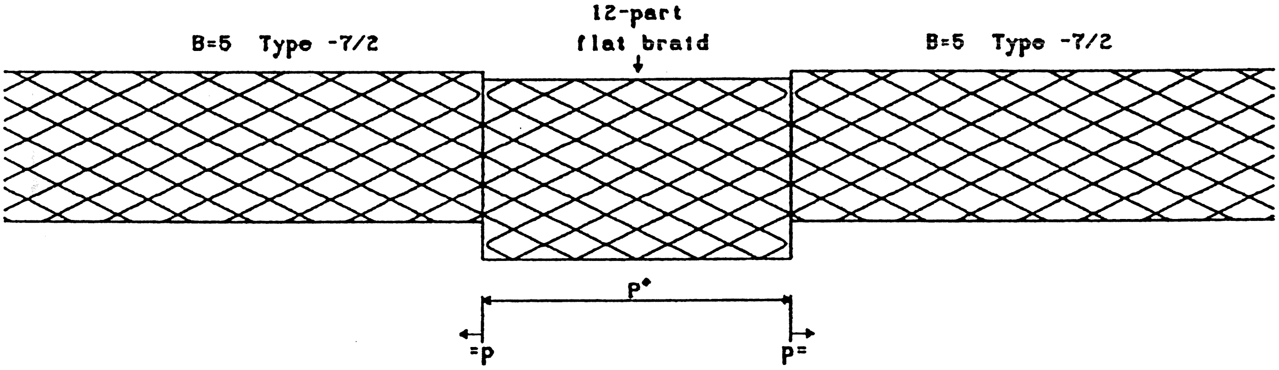
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



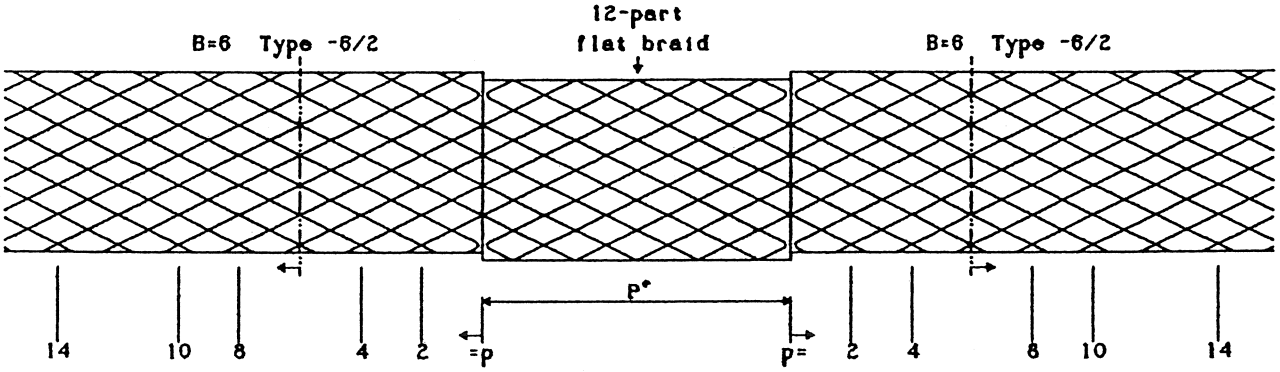
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



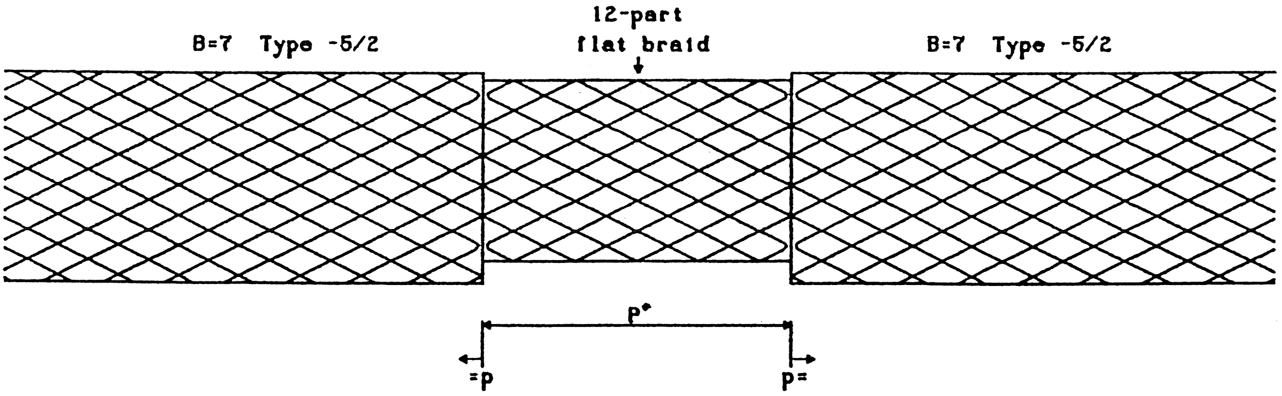
1-string solutions for $P^*=12n+10$ with $n=0.1.2.3\ldots.$



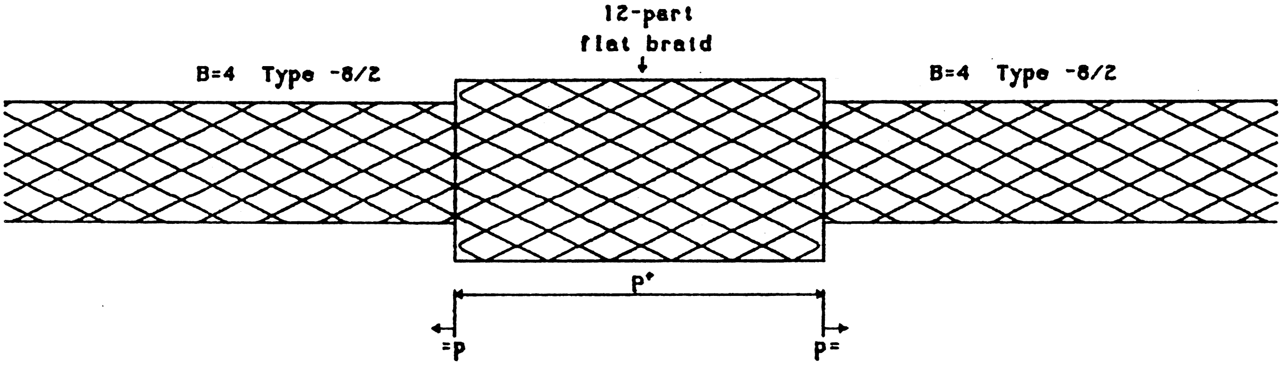
NO 1-string solutions for $P^*=12n+10$ with $n=0.1.2.3\ldots.$



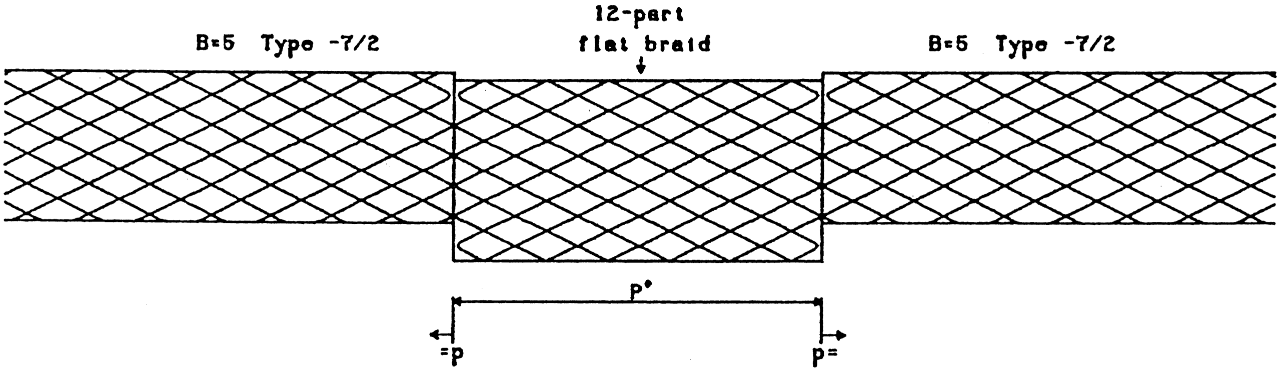
1-string solutions for $P^*=12n+10$ with $n=0.1.2.3\ldots.$



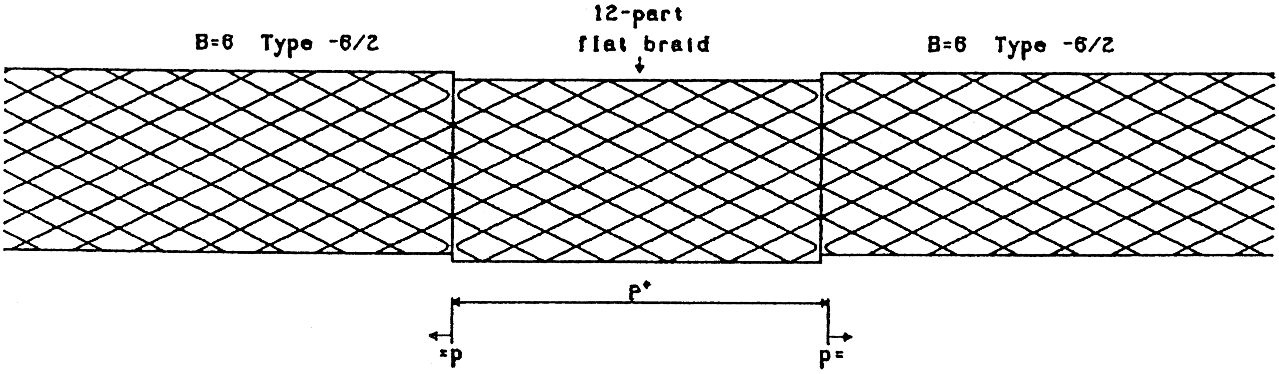
NO 1-string solutions for $P^*=12n+10$ with $n=0.1.2.3\ldots.$



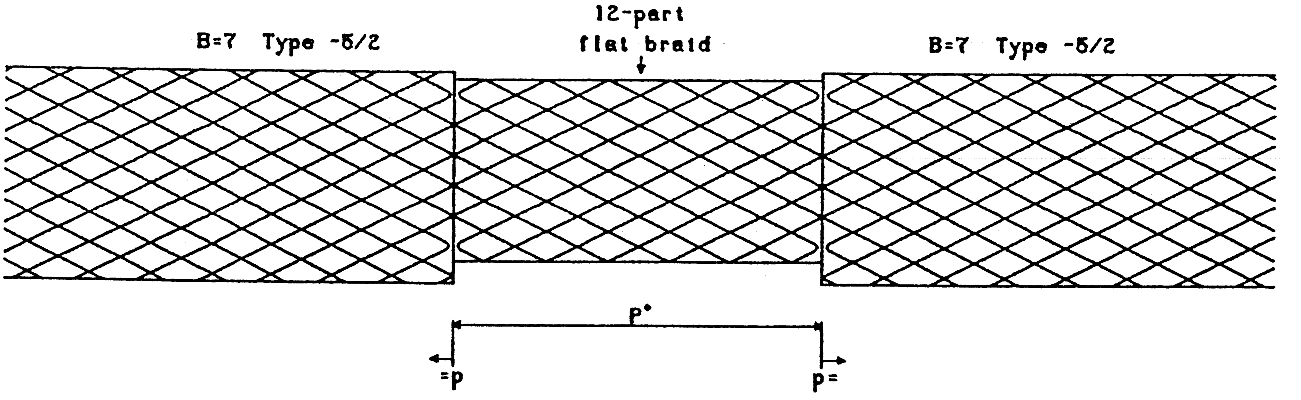
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



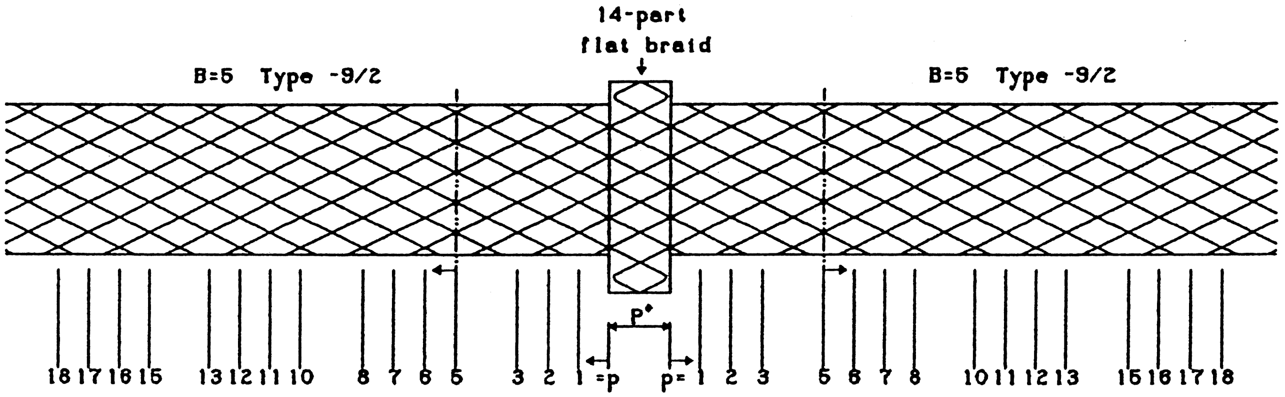
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



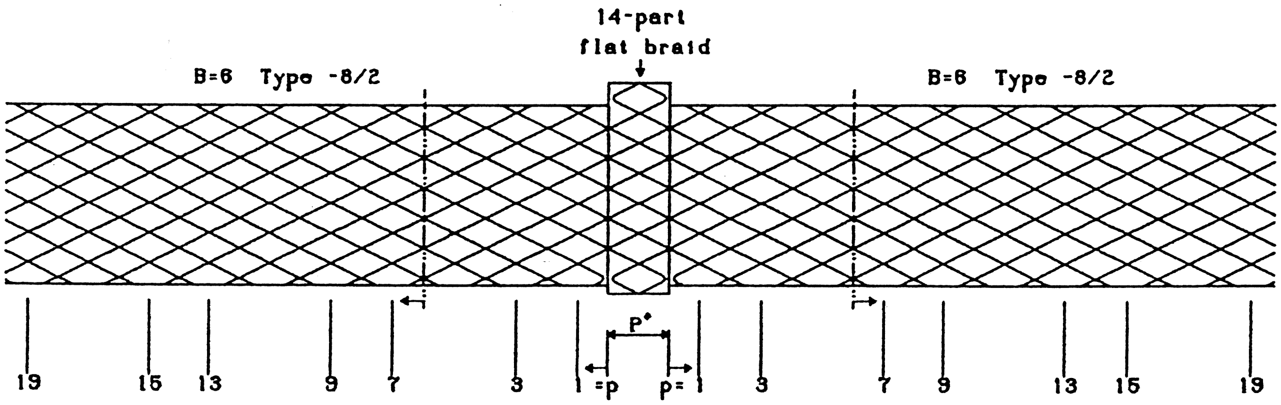
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



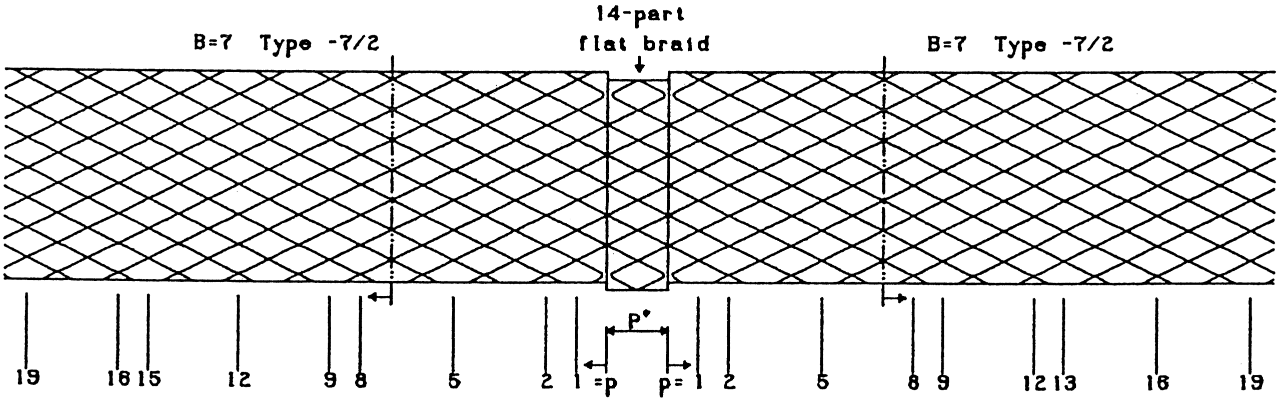
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....


14-part
flat braid
B=5 Type -9/2
B=5 Type -9/2
P*
18 17 16 15 13 12 11 10 8 7 6 5 3 2 1 =p
p= 1 2 3 5 6 7 8 10 11 12 13 15 16 17 18

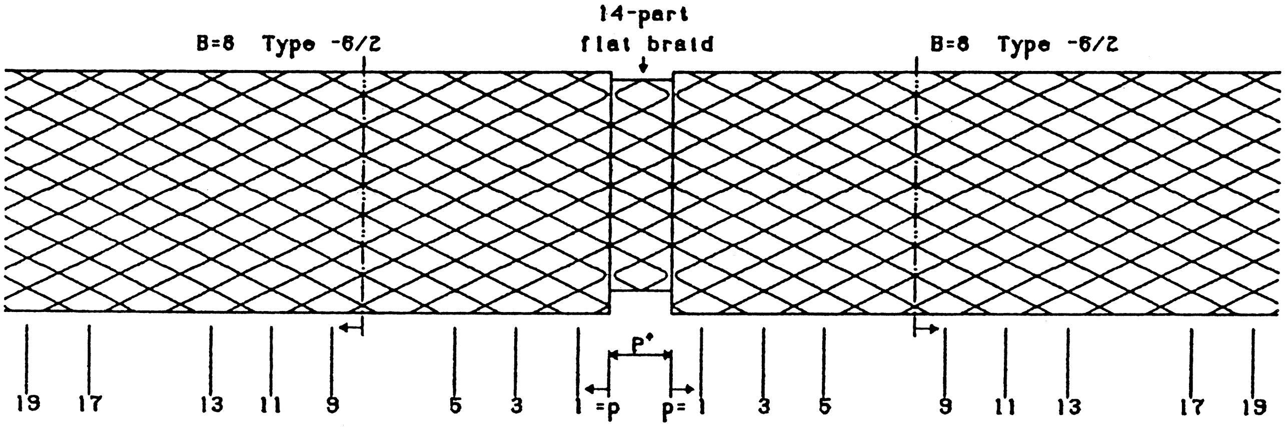
1-string solutions for $P^*=14n+2$ with n=0.1.2.3....



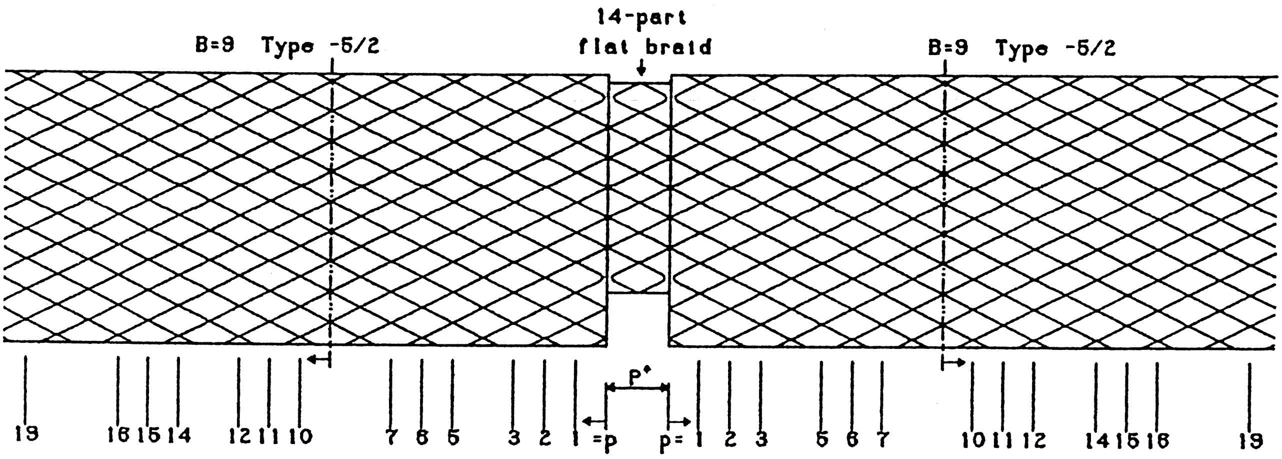
1-string solutions for $P^*=14n+2$ with n=0.1.2.3....



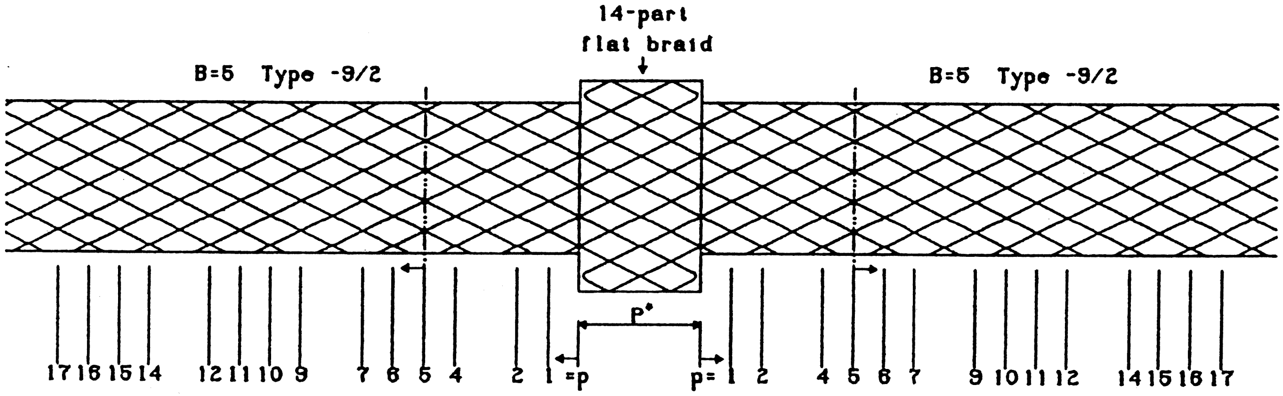
1-string solutions for $P^*=14n+2$ with n=0.1.2.3....



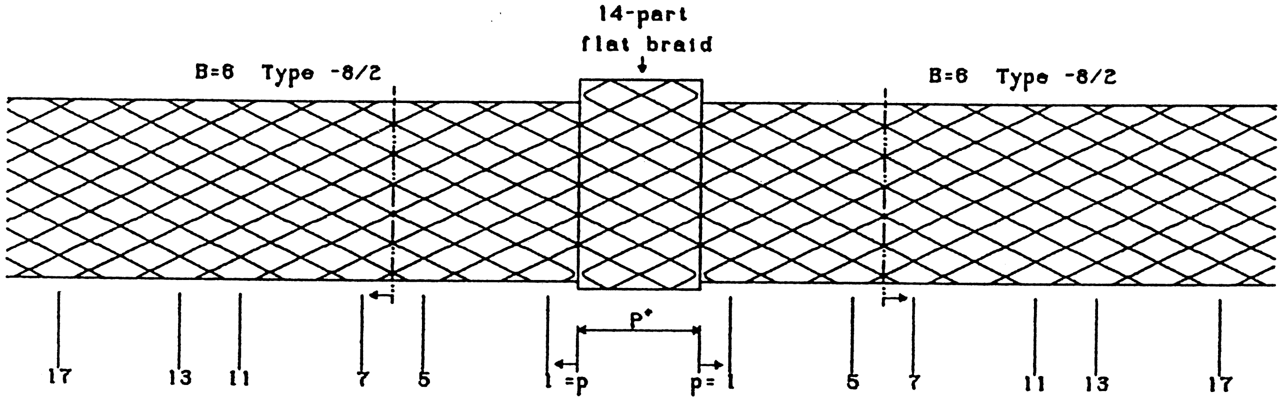
1-string solutions for P*=14n+2 with n=0.1.2.3....


14-part
flat braid
B=9 Type -5/2
B=9 Type -5/2
P*
19 16 15 14 12 11 10 7 6 5 3 2 1 =p
p= 1 2 3 5 6 7 10 11 12 14 15 16 19

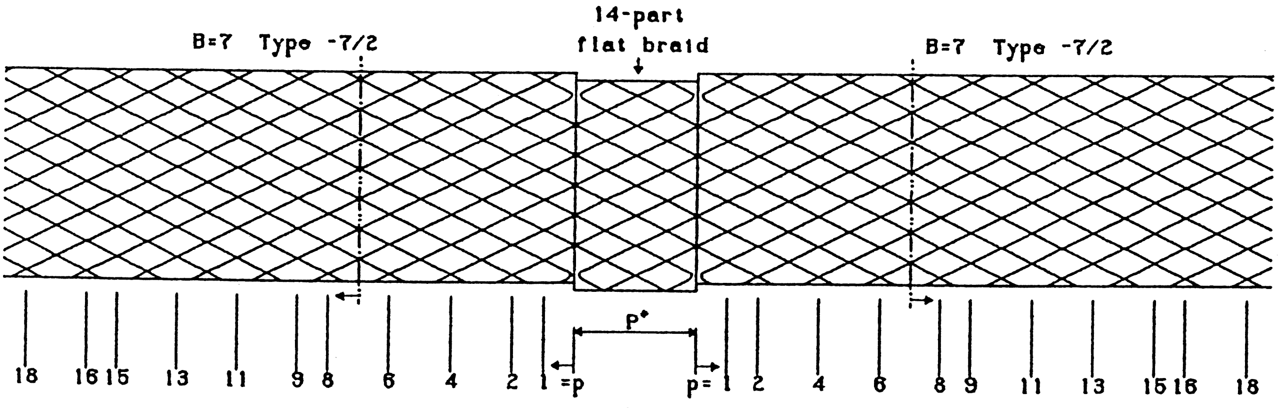
1-string solutions for P*=14n+2 with n=0.1.2.3....


14-part
flat braid
B=5 Type -9/2
B=5 Type -9/2
P*
17 16 15 14 12 11 10 9 7 6 5 4 2 1 =p
p= 1 2 4 5 6 7 9 10 11 12 14 15 16 17

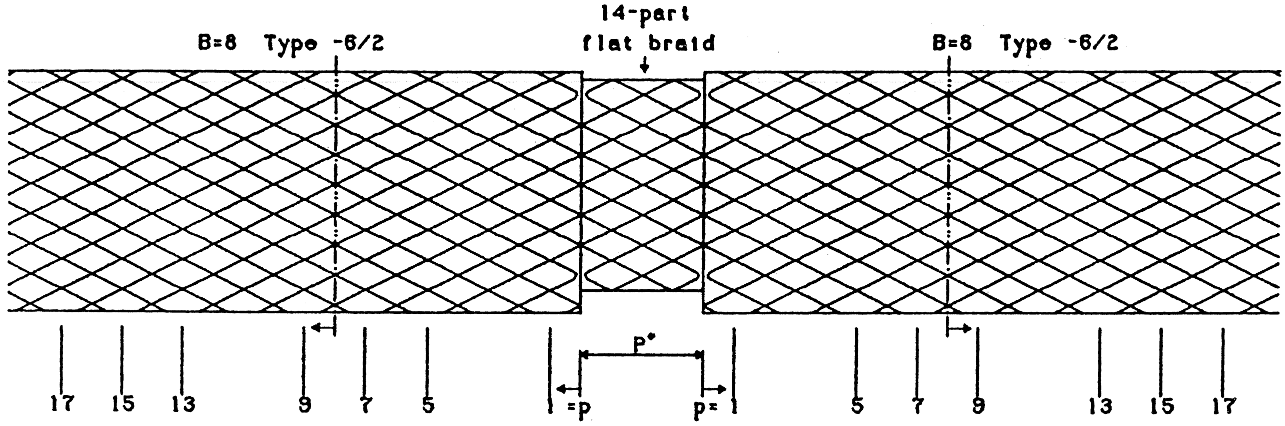
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



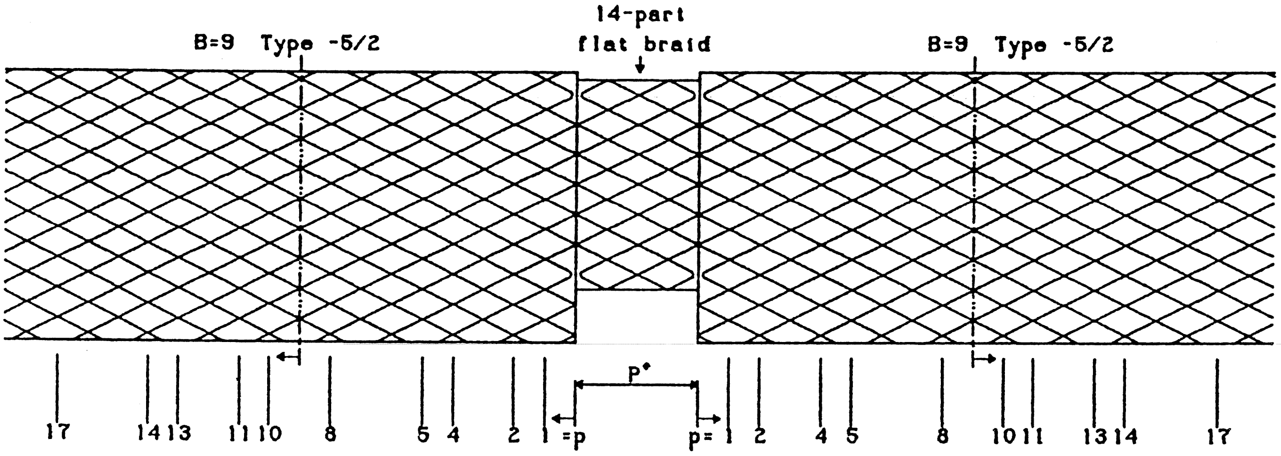
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



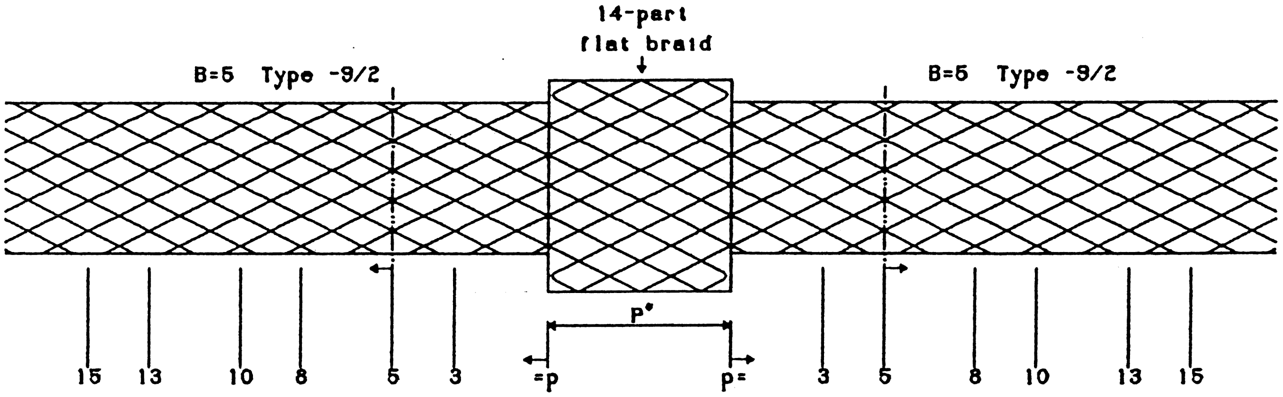
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



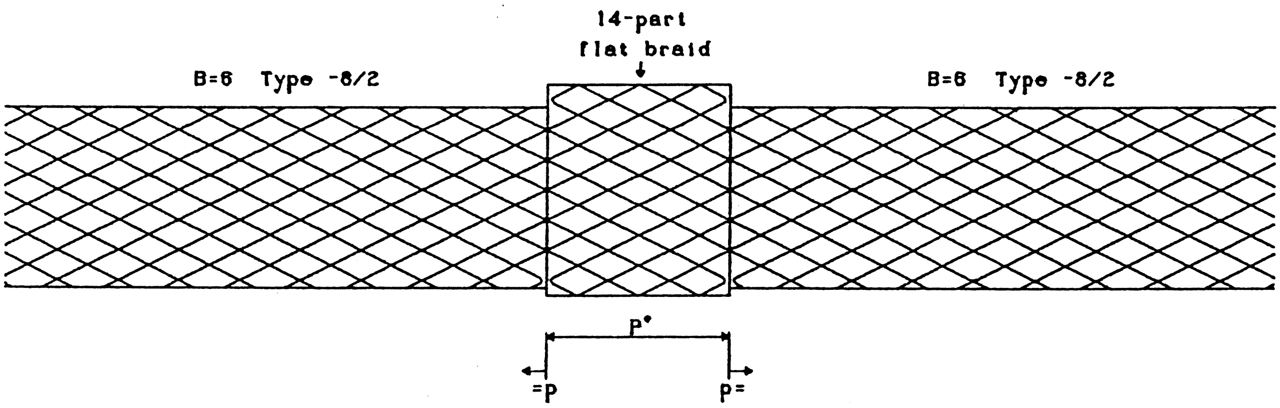
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



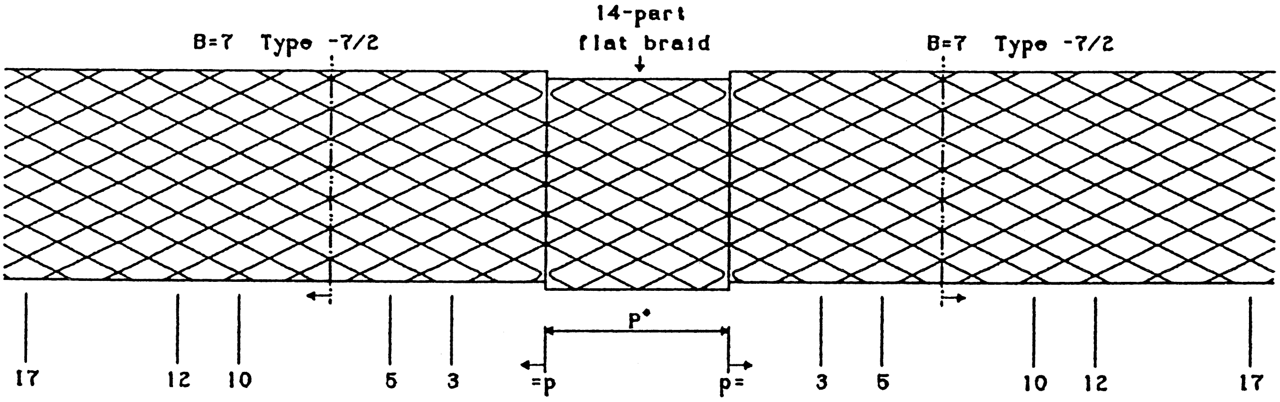
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



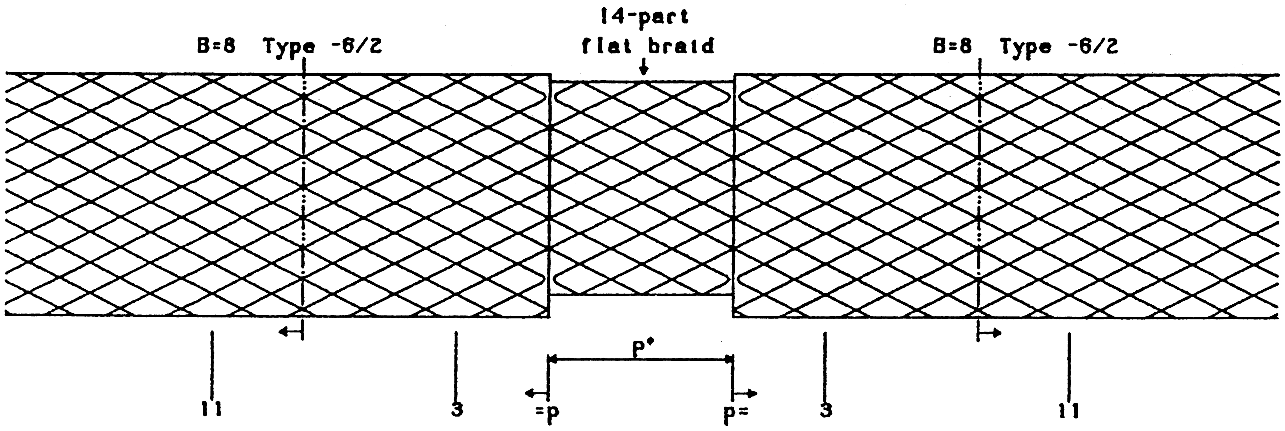
1-string solutions for P*=14n+6 with n=0.1.2.3....



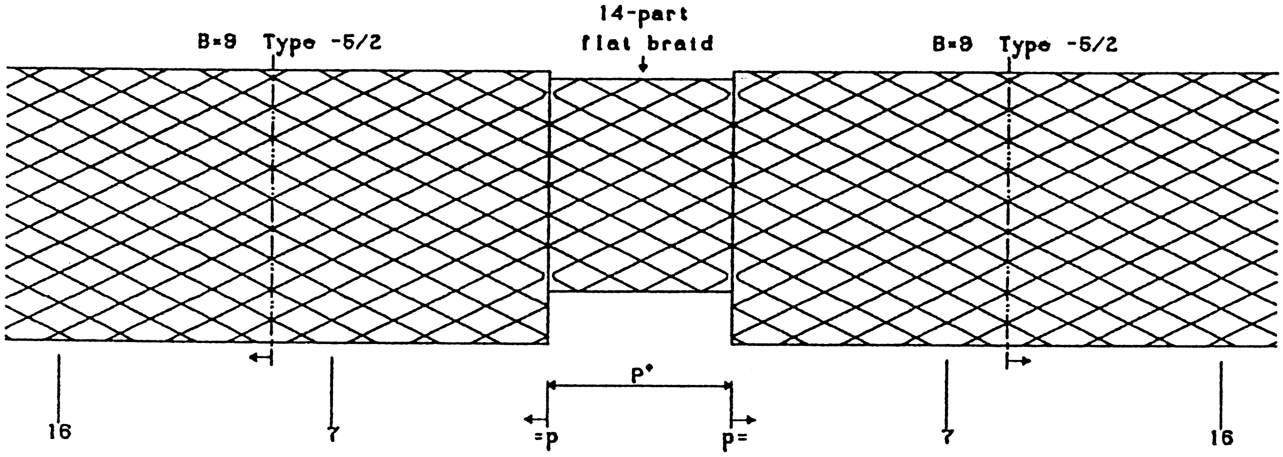
No 1-string solutions for P*=14n+6 with n=0.1.2.3....



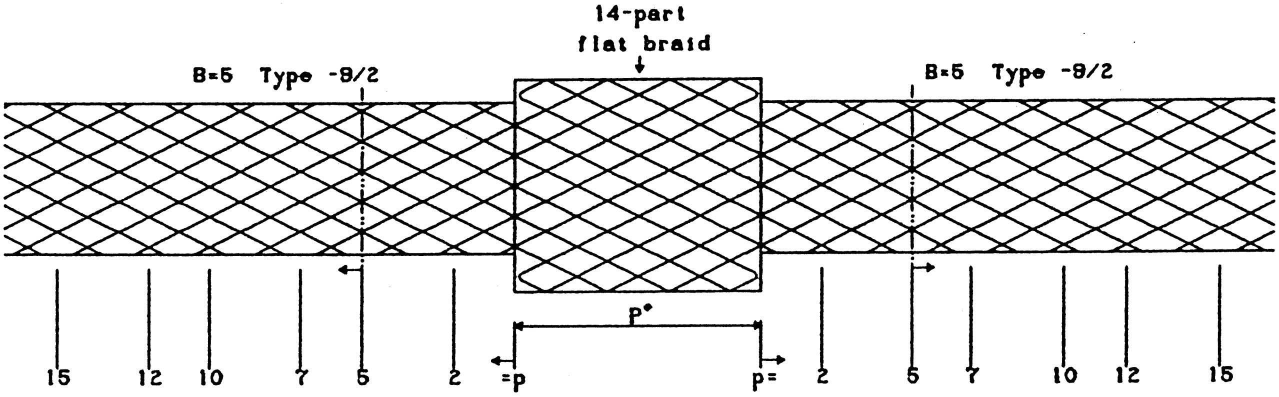
1-string solutions for P*=14n+6 with n=0.1.2.3....



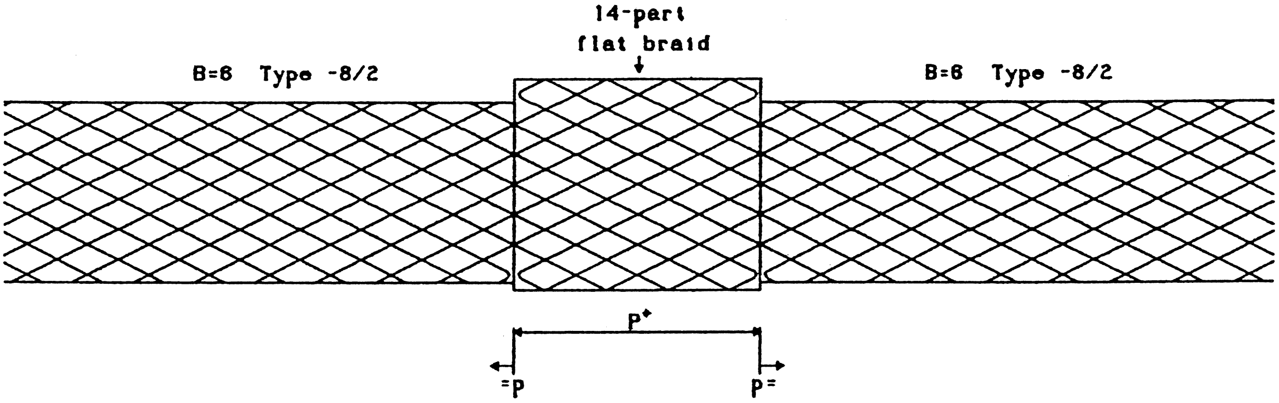
1-string solutions for $P^*=14n+6$ with n=0.1.2.3....



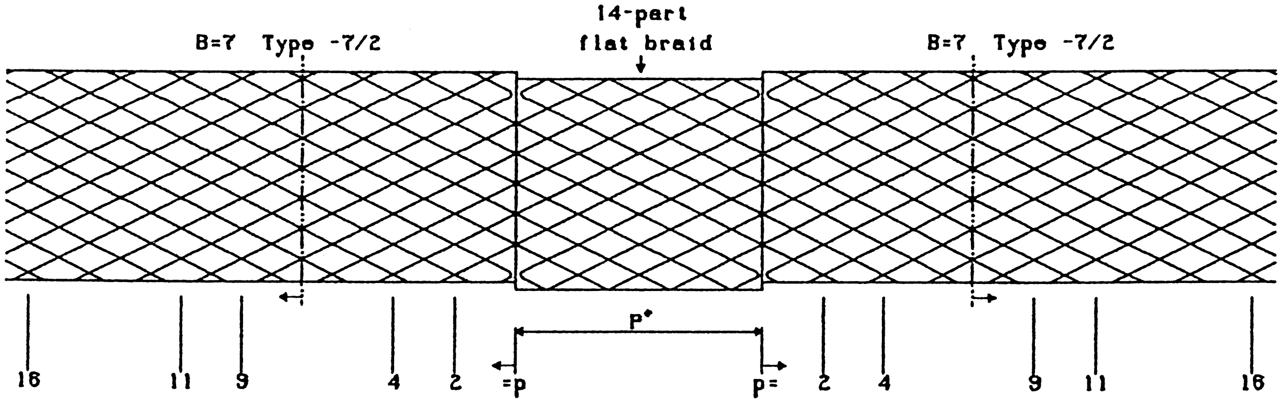
1-string solutions for $P^*=14n+6$ with n=0.1.2.3....



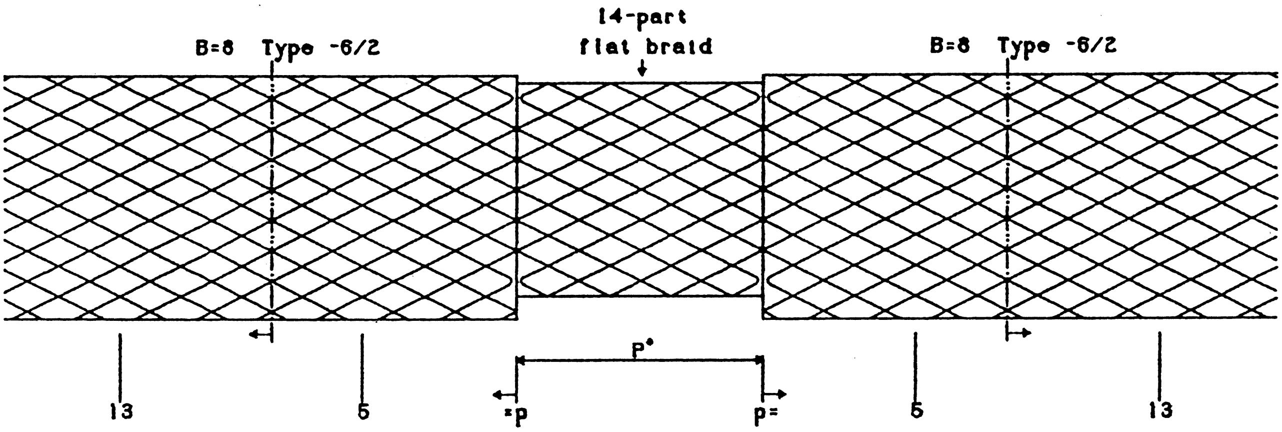
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



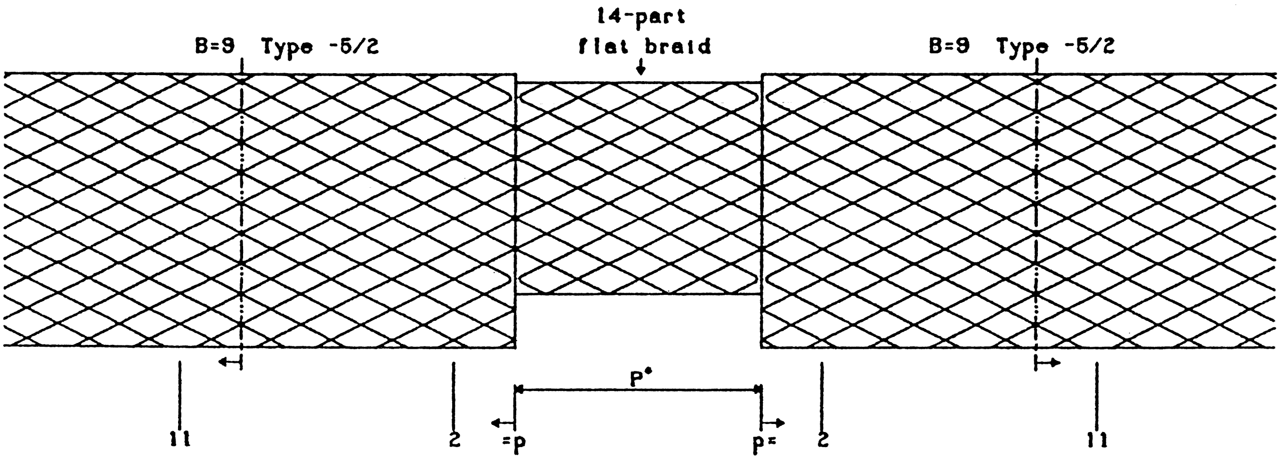
No 1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



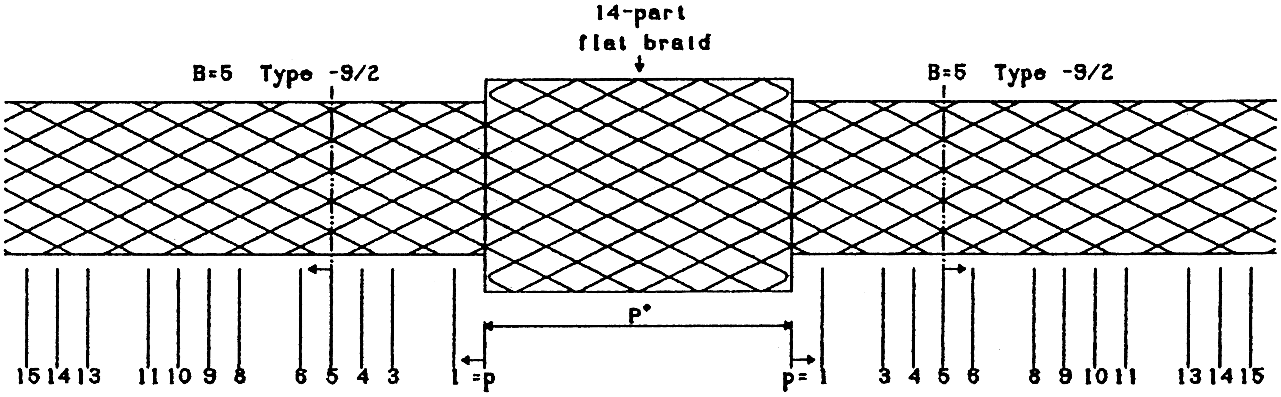
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



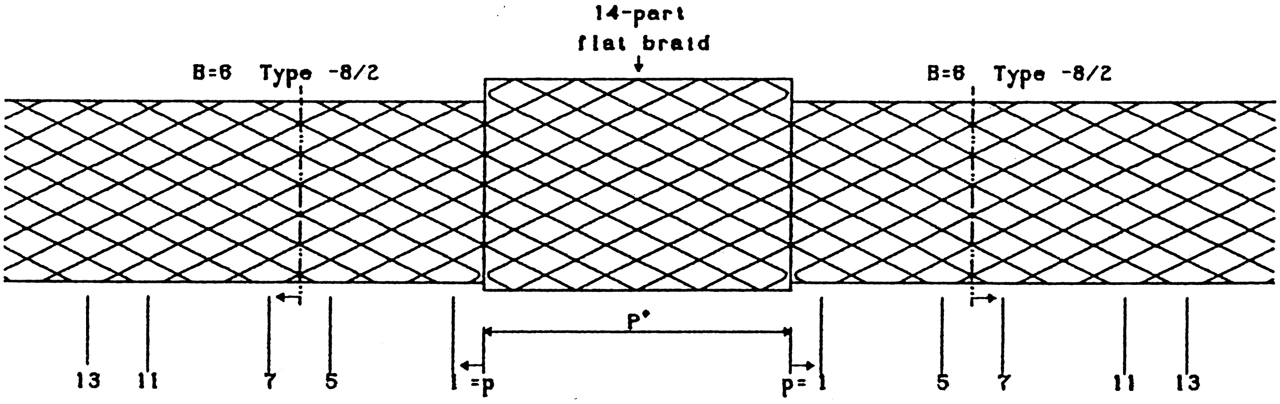
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



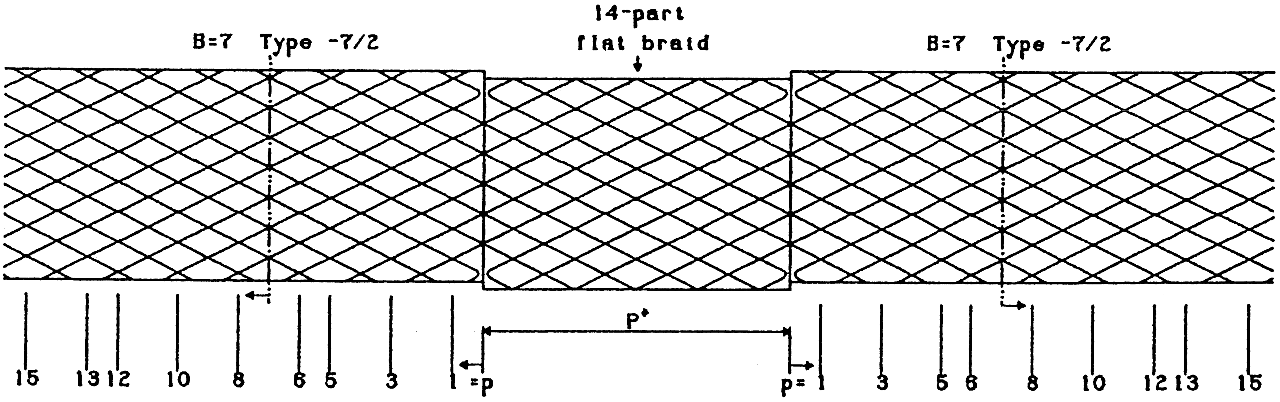
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....


14-part
flat braid
B=5 Type -9/2
B=5 Type -9/2
P*
15 14 13 11 10 9 8 6 5 4 3 1 =p
p= 1 3 4 5 6 8 9 10 11 13 14 15

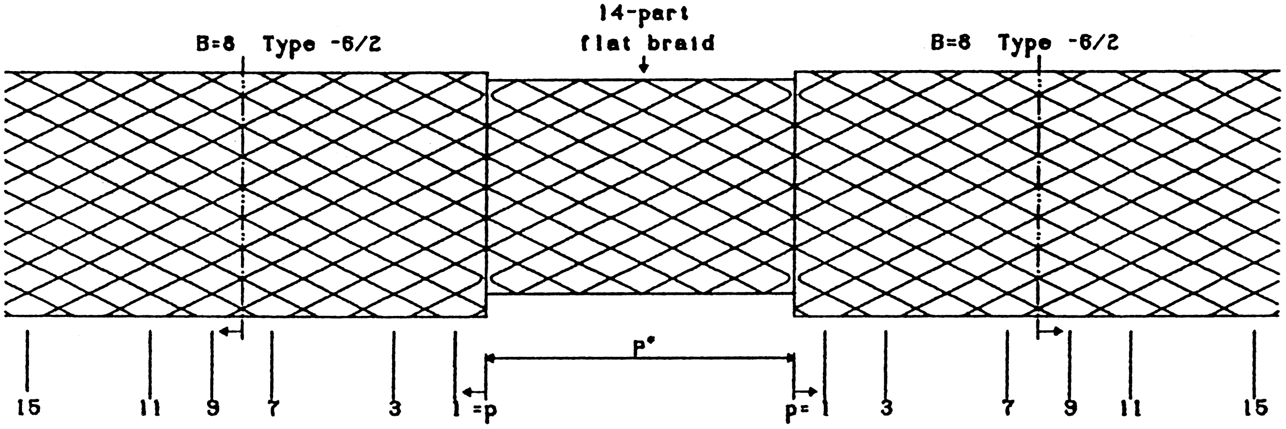
1-string solutions for $P^*=14n+10$ with $n=0.1.2.3....$



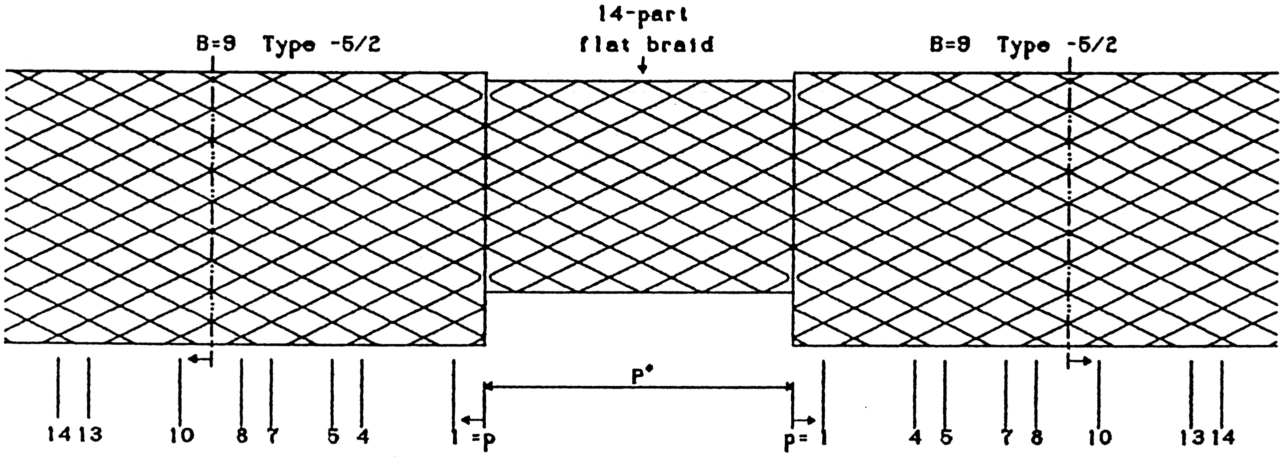
1-string solutions for $P^*=14n+10$ with $n=0.1.2.3....$



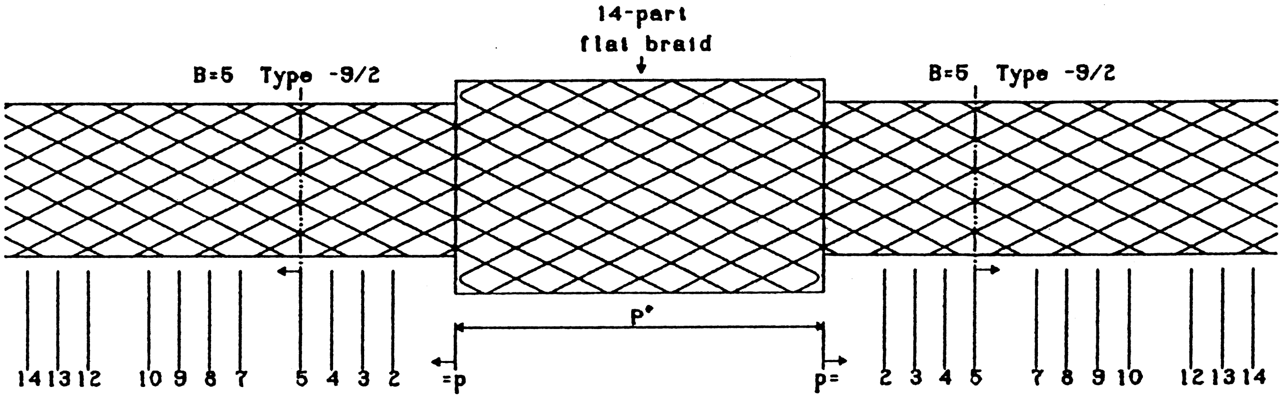
1-string solutions for $P^*=14n+10$ with $n=0.1.2.3....$



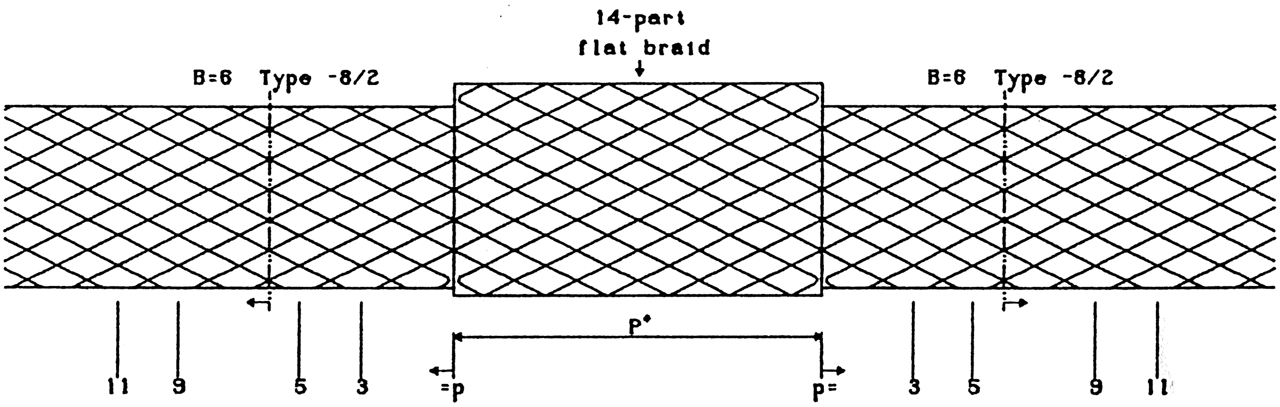
1-string solutions for $P^*=14n+10$ with n=0.1.2.3....



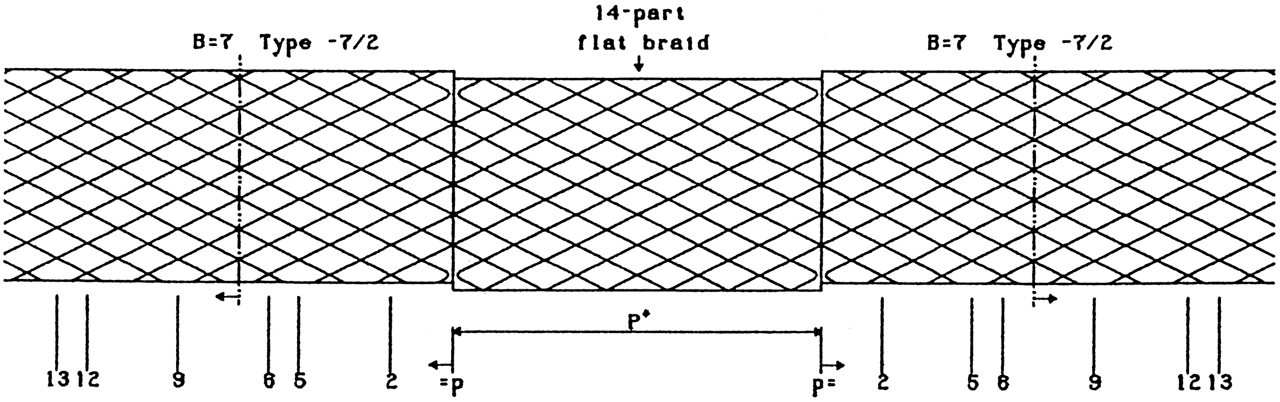
1-string solutions for $P^*=14n+10$ with n=0.1.2.3....



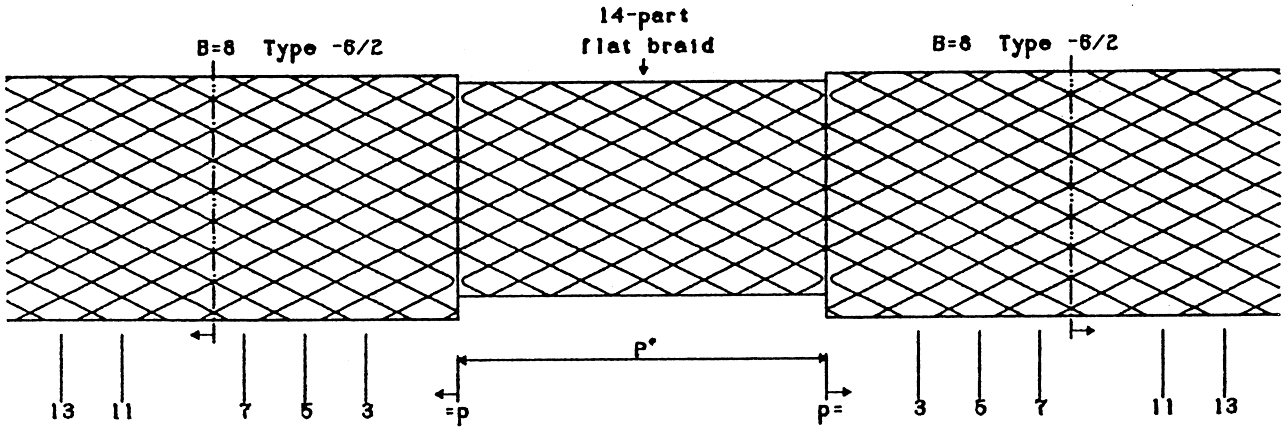
1-string solutions for $P^*=14n+12$ with $n=0,1,2,3,\ldots$



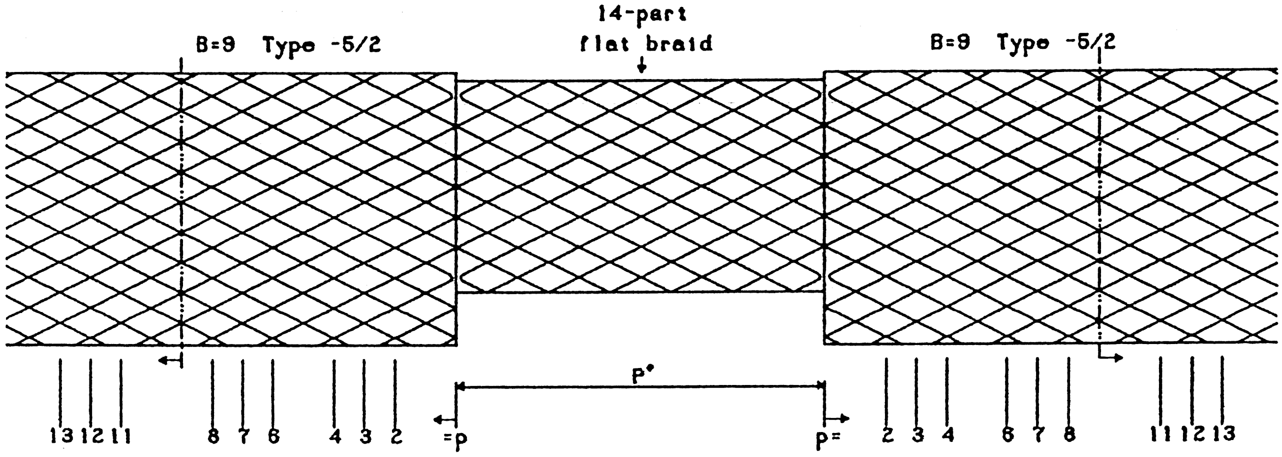
1-string solutions for $P^*=14n+12$ with $n=0,1,2,3,\ldots$



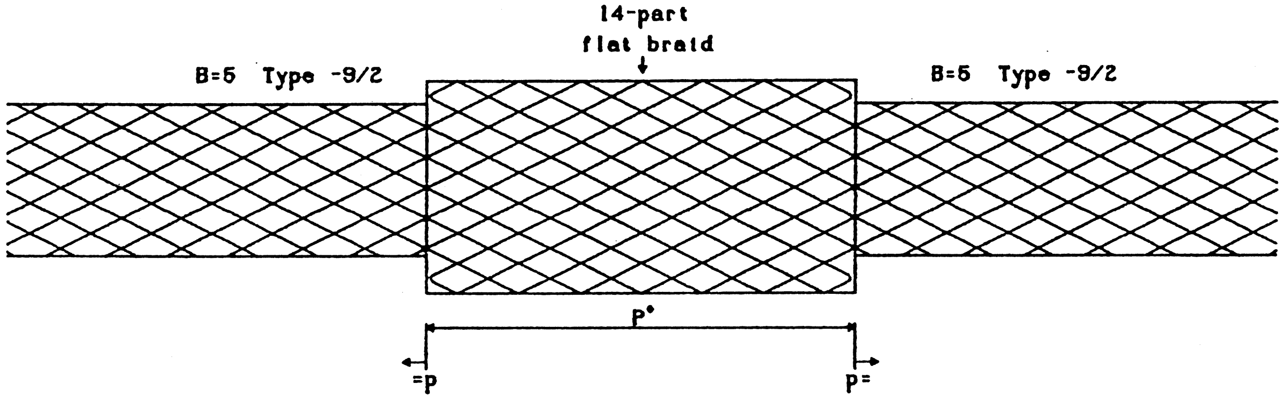
1-string solutions for $P^*=14n+12$ with $n=0,1,2,3,\ldots$



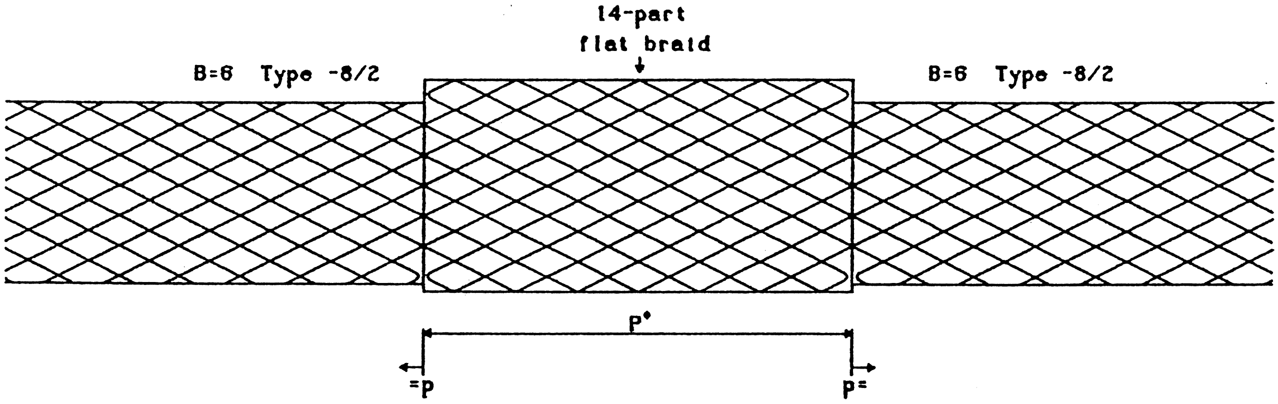
1-string solutions for P*=14n+12 with n=0.1.2.3....



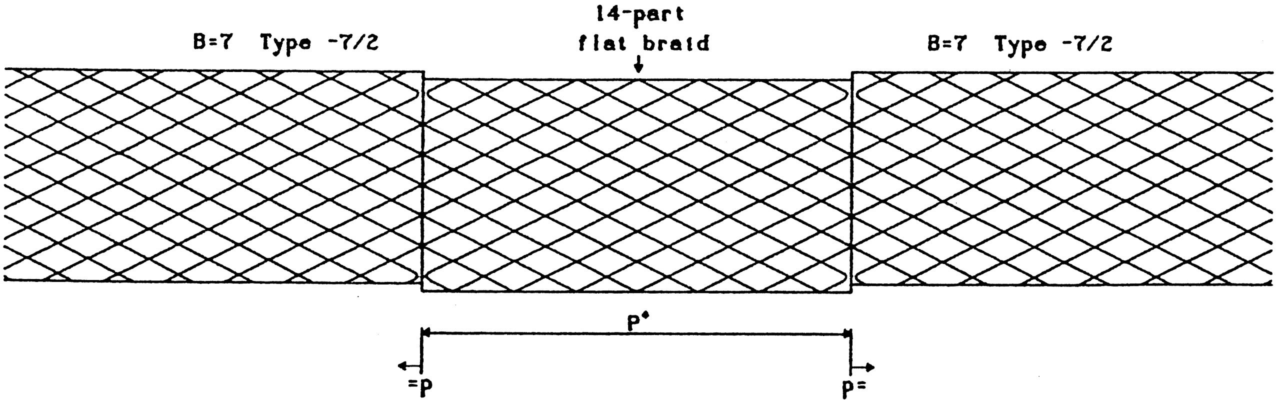
1-string solutions for P*=14n+12 with n=0.1.2.3....



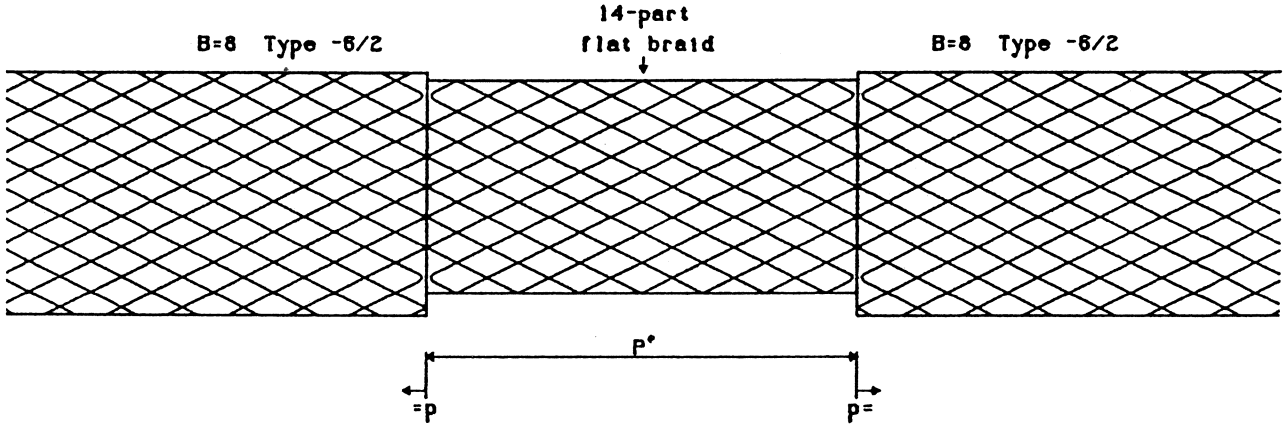
No 1-string solutions for $P^*=14n+14$ with n=0.1.2.3....



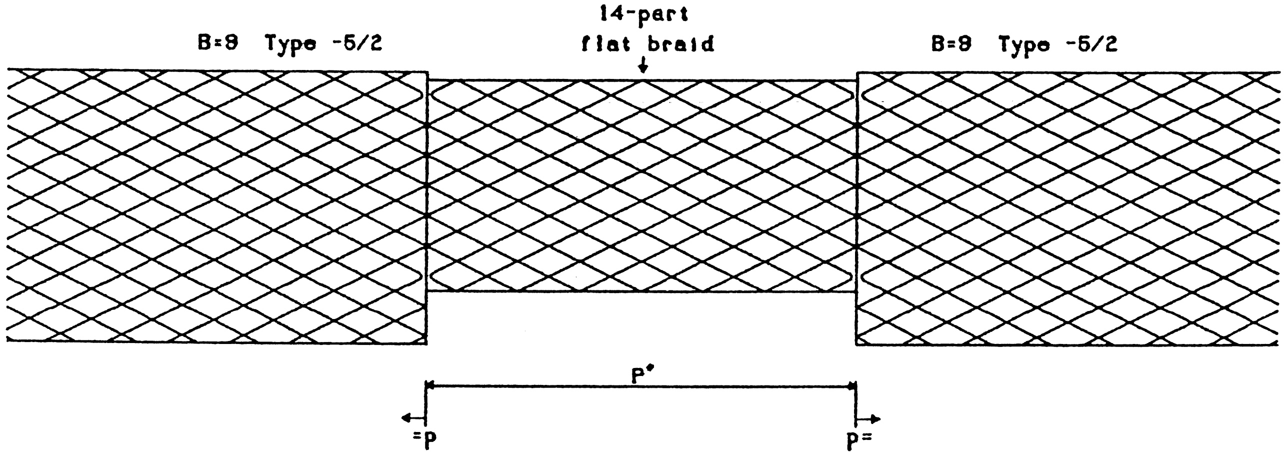
No 1-string solutions for $P^*=14n+14$ with n=0.1.2.3....



No 1-string solutions for $P^*=14n+14$ with n=0.1.2.3....



No 1-string solutions for $P^*=14n+14$ with n=0.1.2.3....



No 1-string solutions for $P^*=14n+14$ with n=0.1.2.3....

pp. 124 — 162

Regular $C_1F^*C_1$ Knots

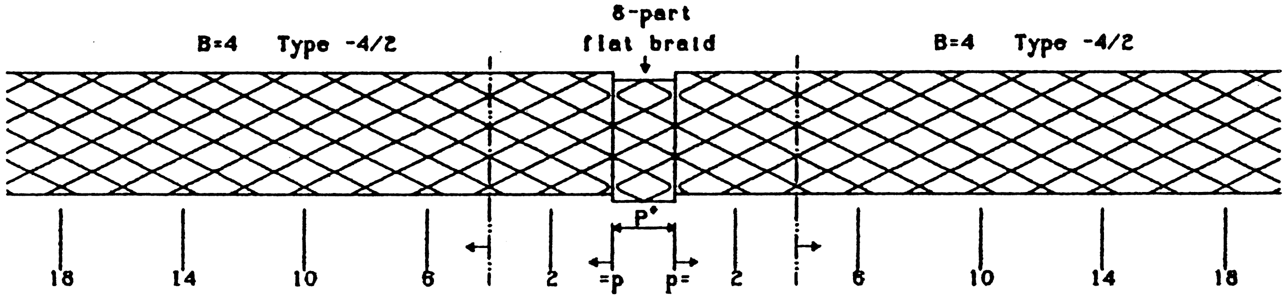
with

$2x = p_F - 2$

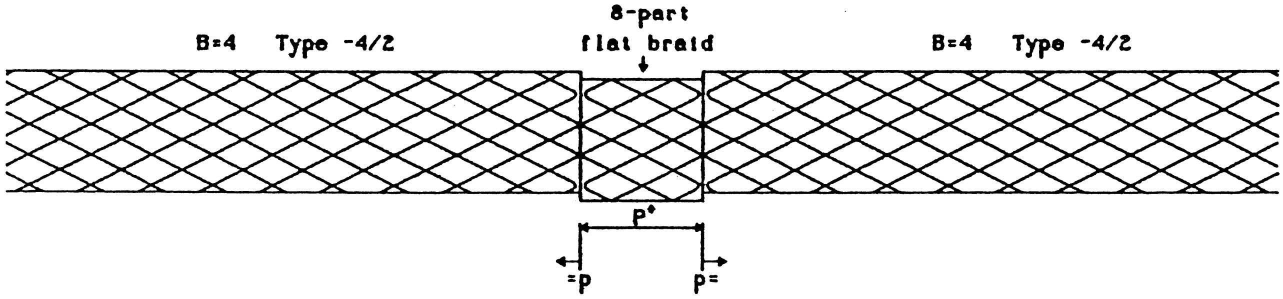
$p_F = 8, 10, 12, 14.$

$p_F - 4 \leq B \leq p_F - 1$ for $p_F = 8.$

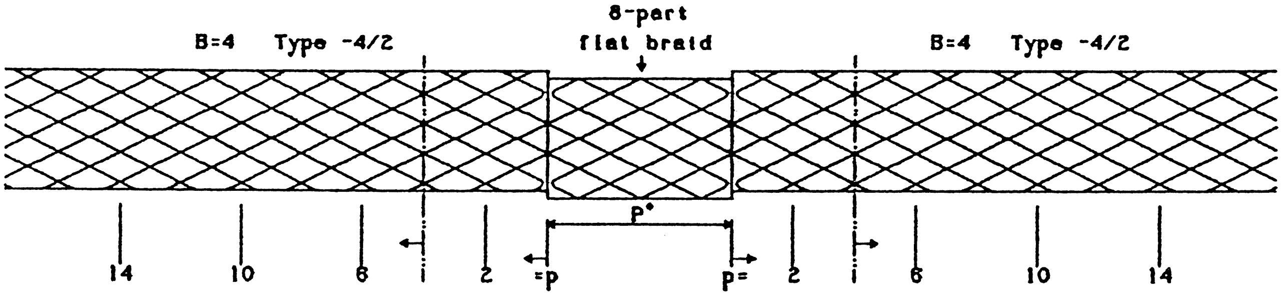
$p_F - 4 \leq B \leq p_F$ for $10 \leq p_F \leq 14.$



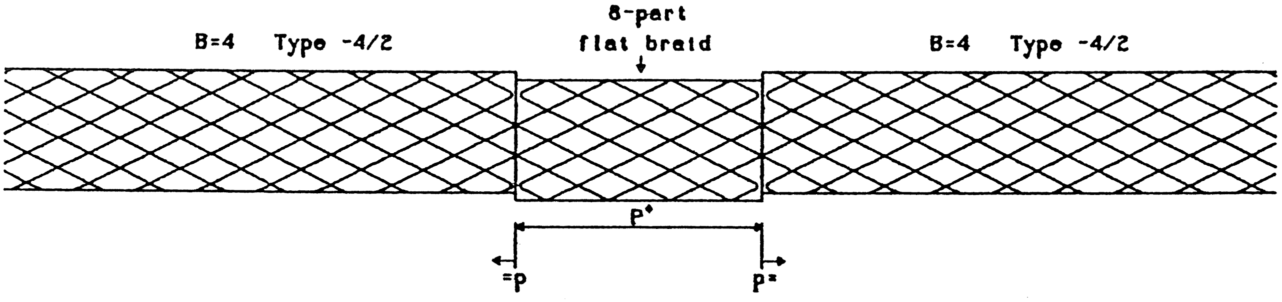
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



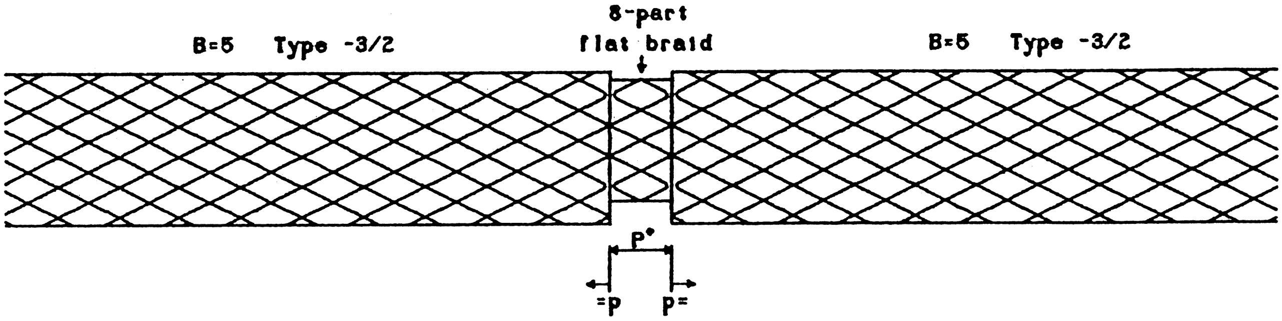
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



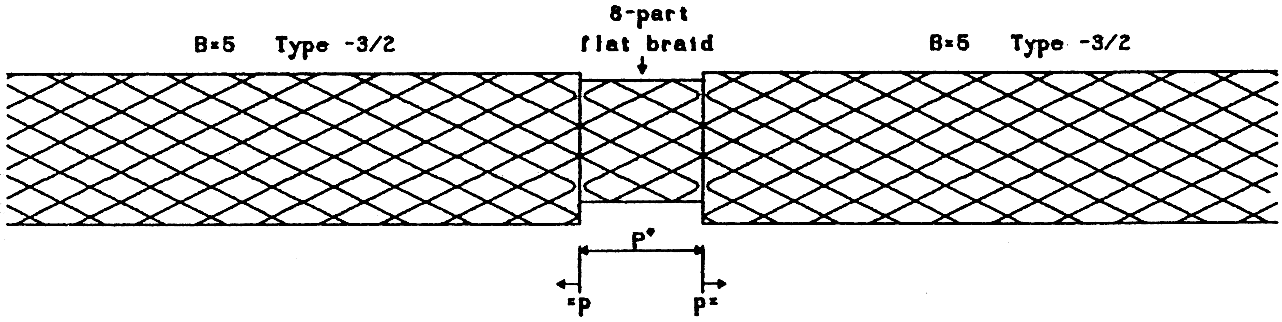
1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



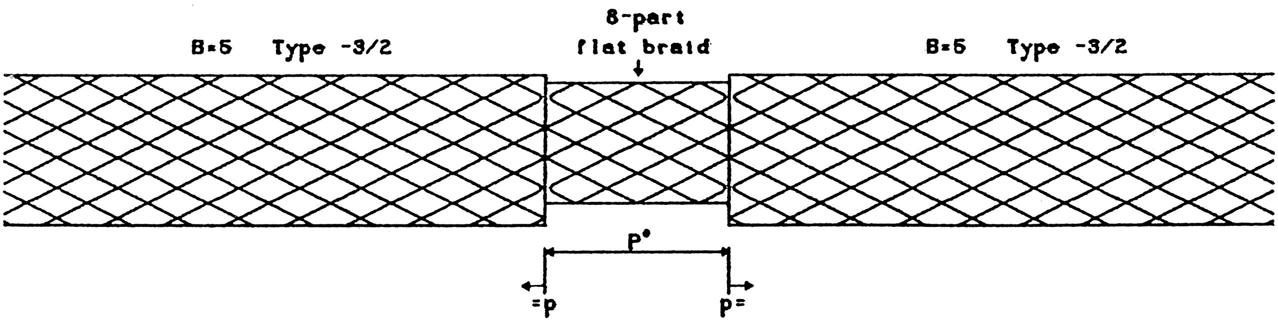
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



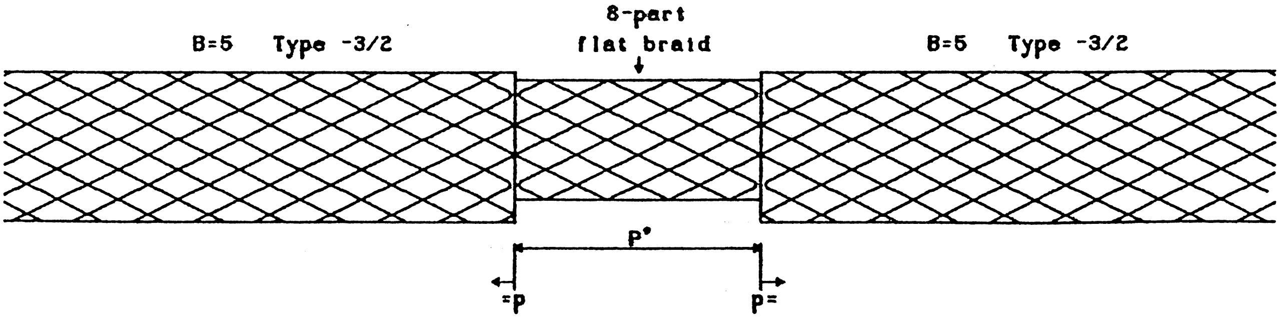
NO 1-string solutions for $P^*=8n+2$ with $n=0.1.2.3....$



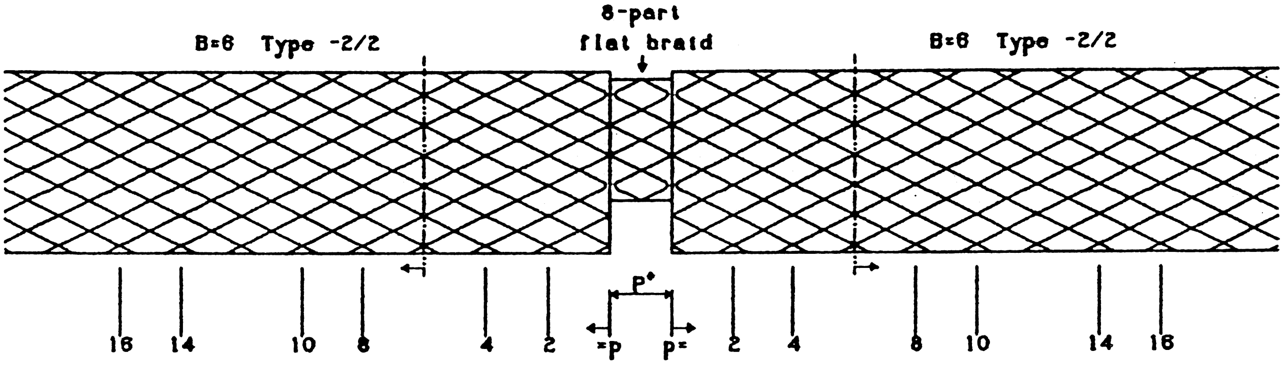
NO 1-string solutions for $P^*=8n+4$ with $n=0.1.2.3....$



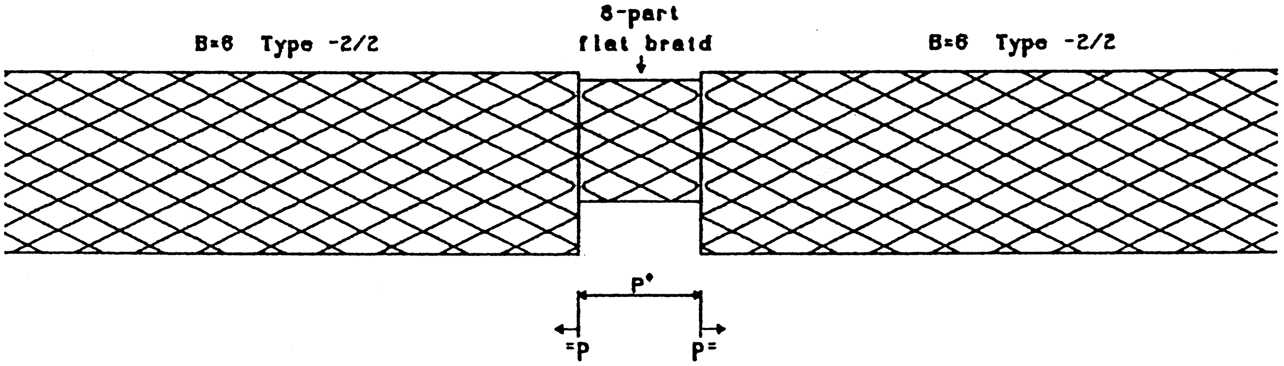
NO 1-string solutions for $P^*=8n+6$ with $n=0.1.2.3....$



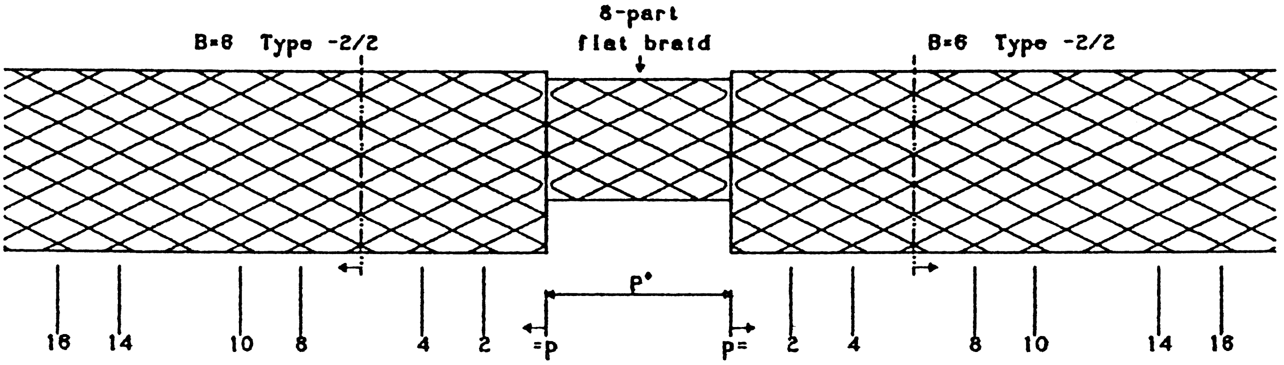
NO 1-string solutions for $P^*=8n+8$ with $n=0.1.2.3....$



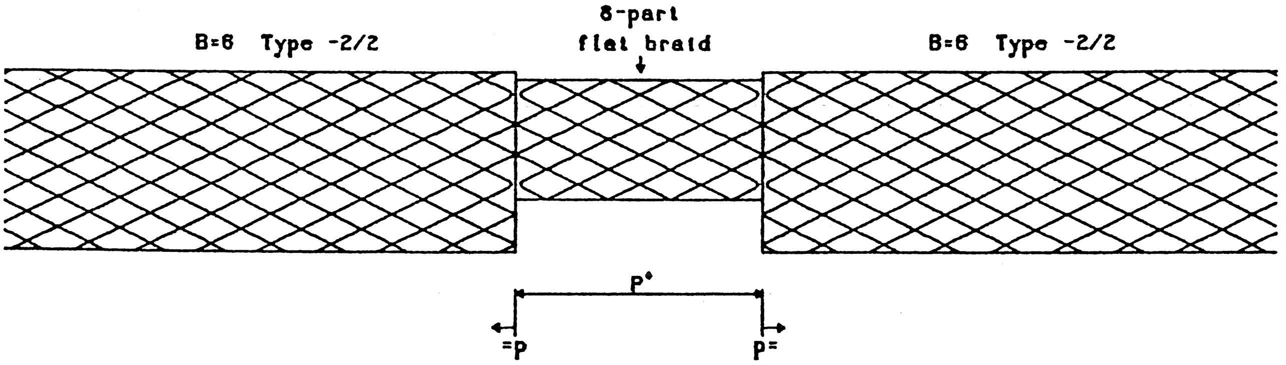
1-string solutions for $P^*=8n+2$ with n=0.1.2.3....



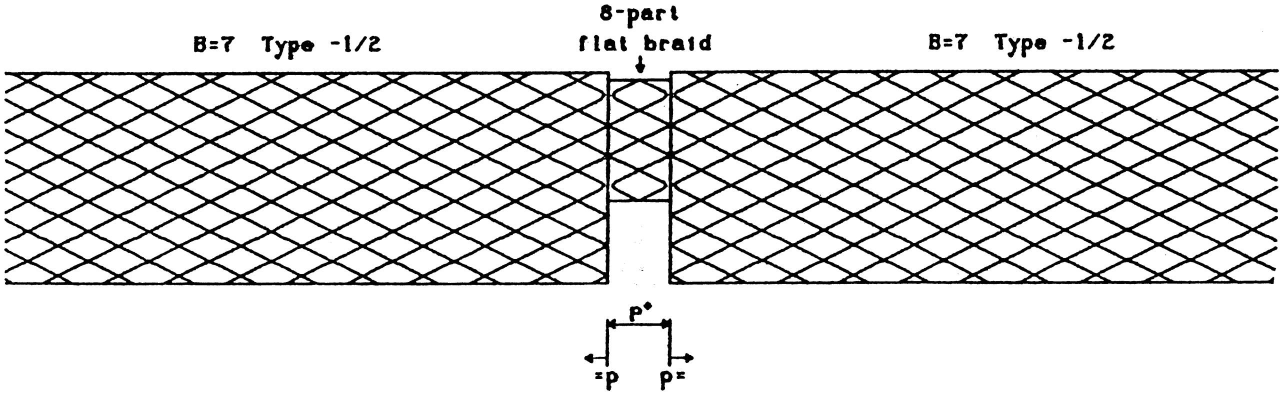
NO 1-string solutions for $P^*=8n+4$ with n=0.1.2.3....



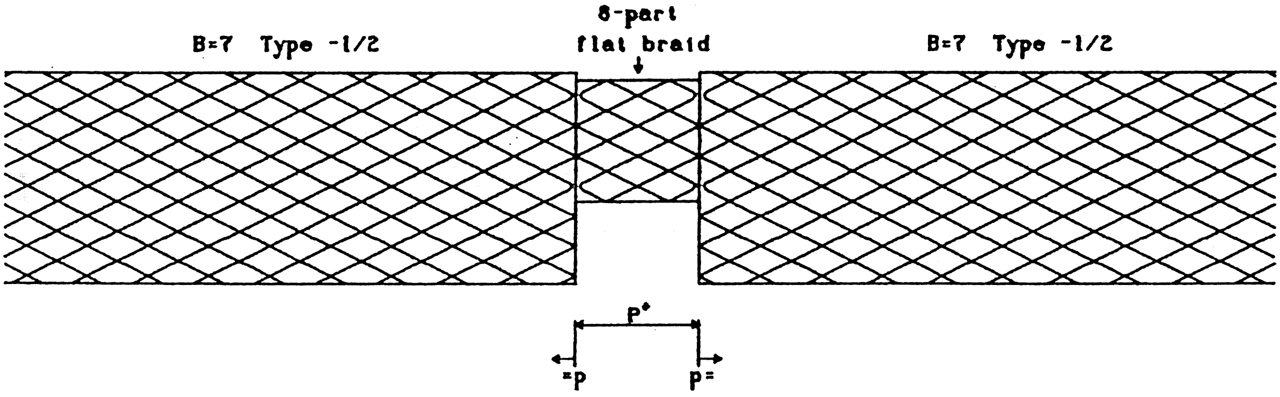
1-string solutions for $P^*=8n+6$ with n=0.1.2.3....



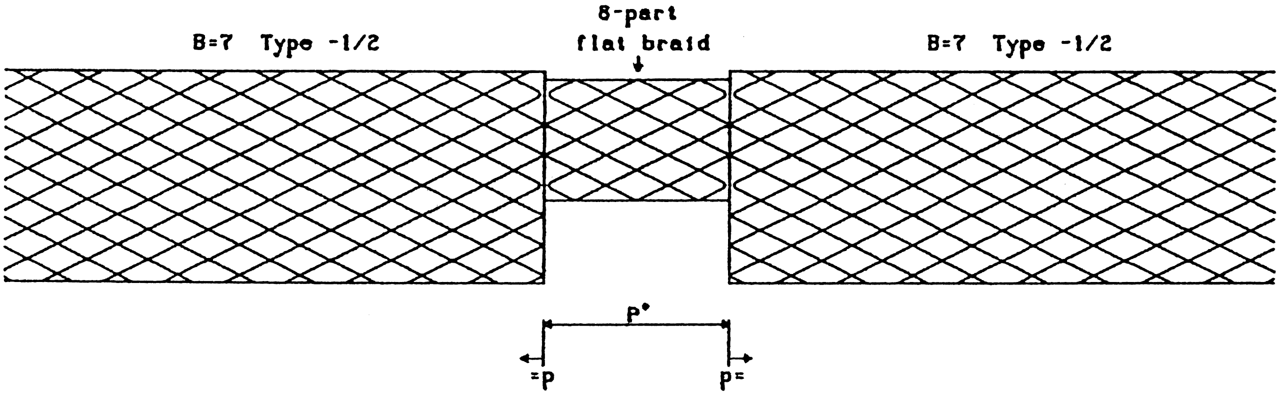
NO 1-string solutions for $P^*=8n+8$ with n=0.1.2.3....



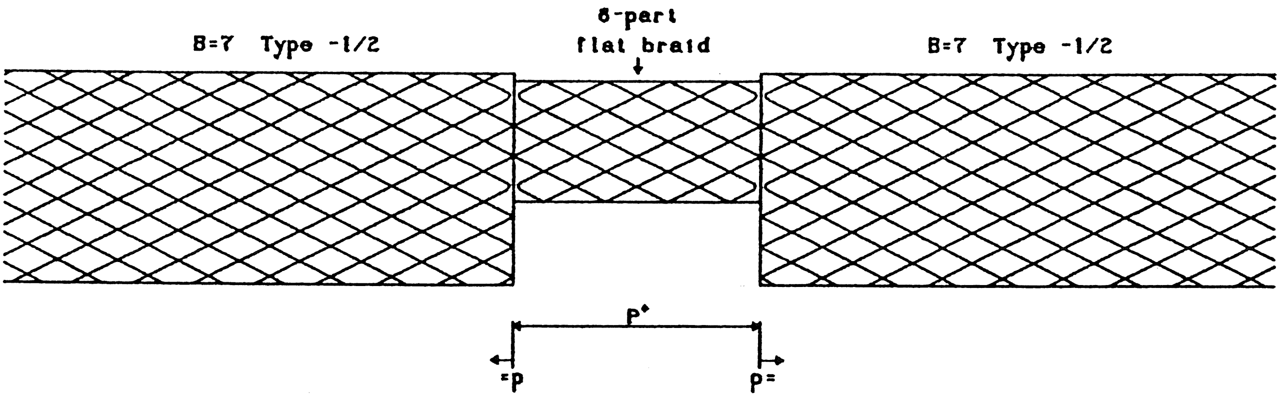
NO 1-string solutions for $P^*=8n+2$ with $n=0,1,2,3....$



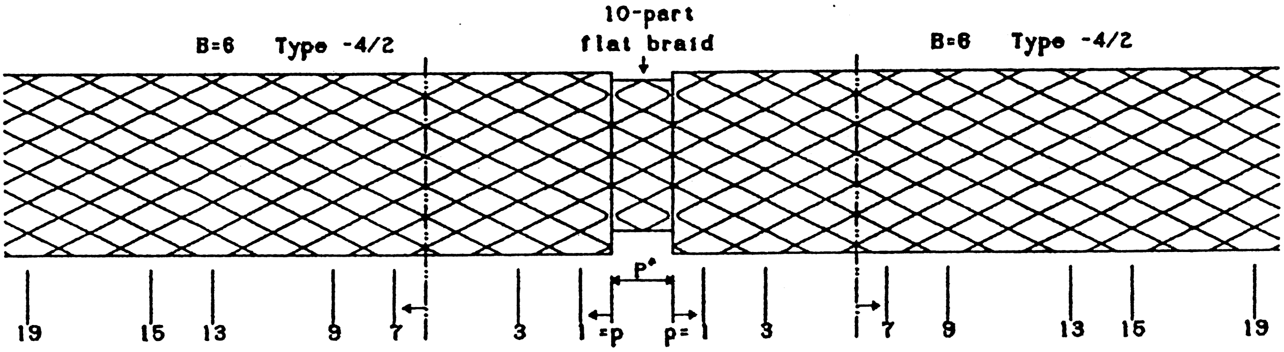
NO 1-string solutions for $P^*=8n+4$ with $n=0,1,2,3....$



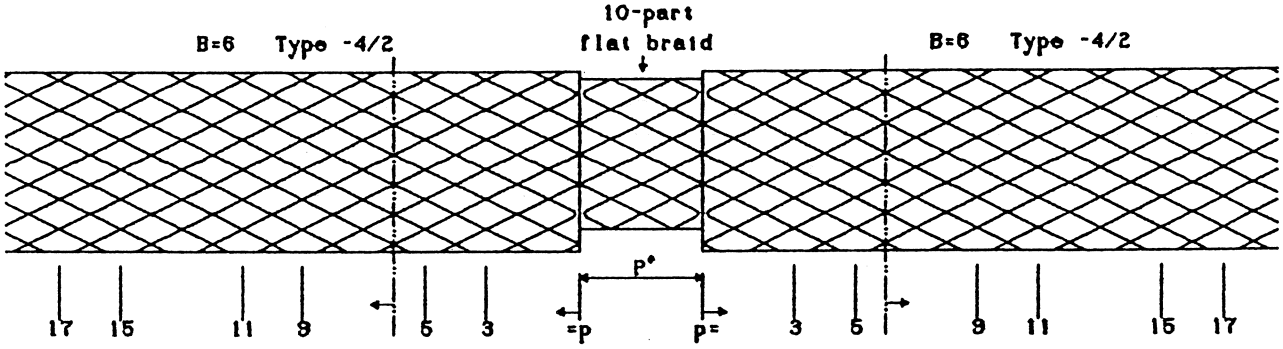
NO 1-string solutions for $P^*=8n+6$ with $n=0,1,2,3....$



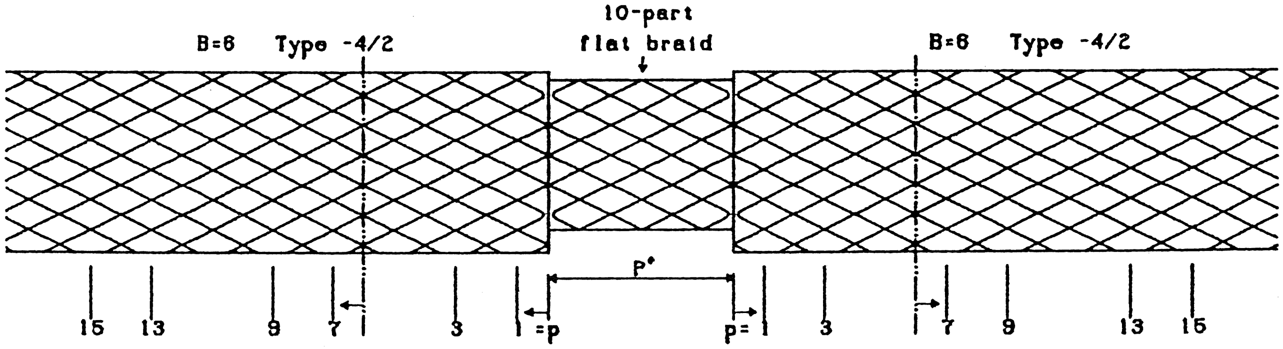
NO 1-string solutions for $P^*=8n+8$ with $n=0,1,2,3....$



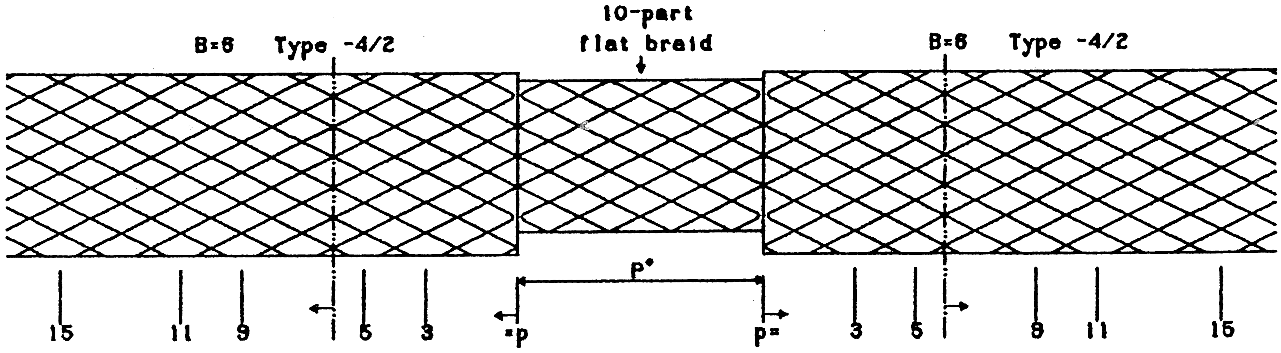
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



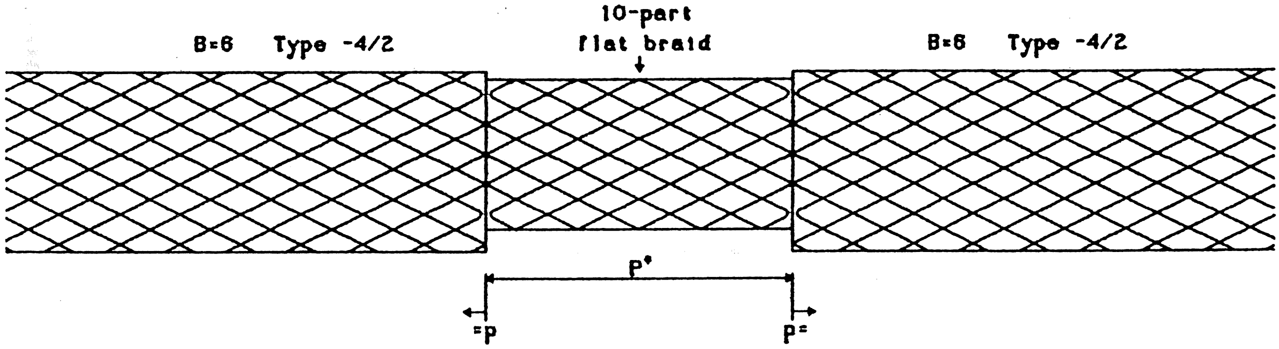
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



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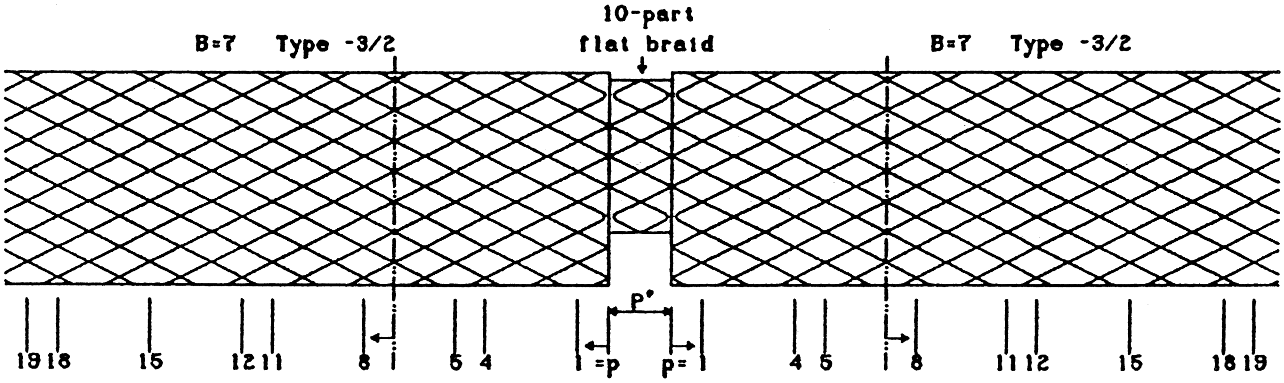
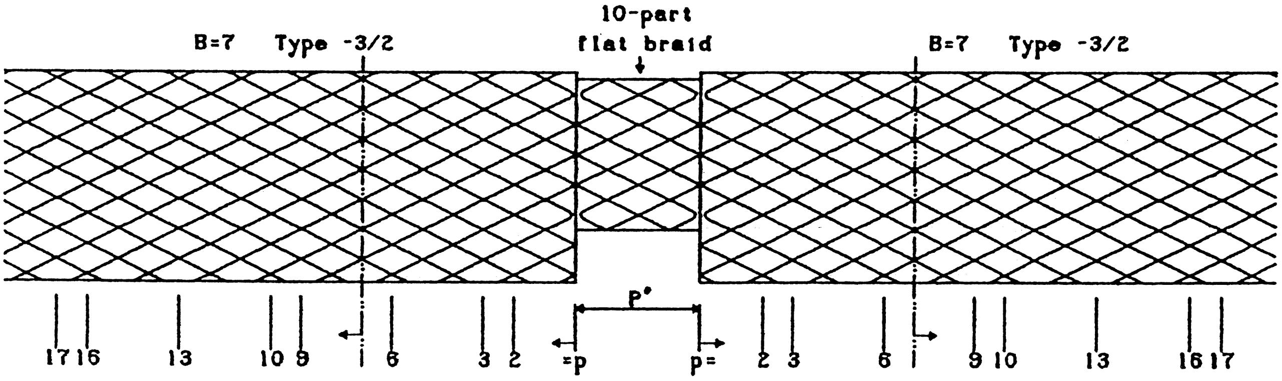
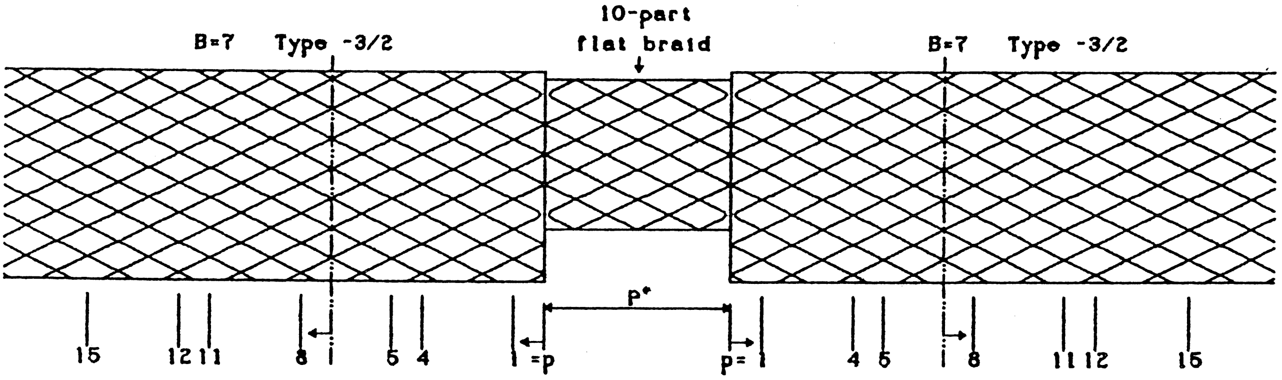


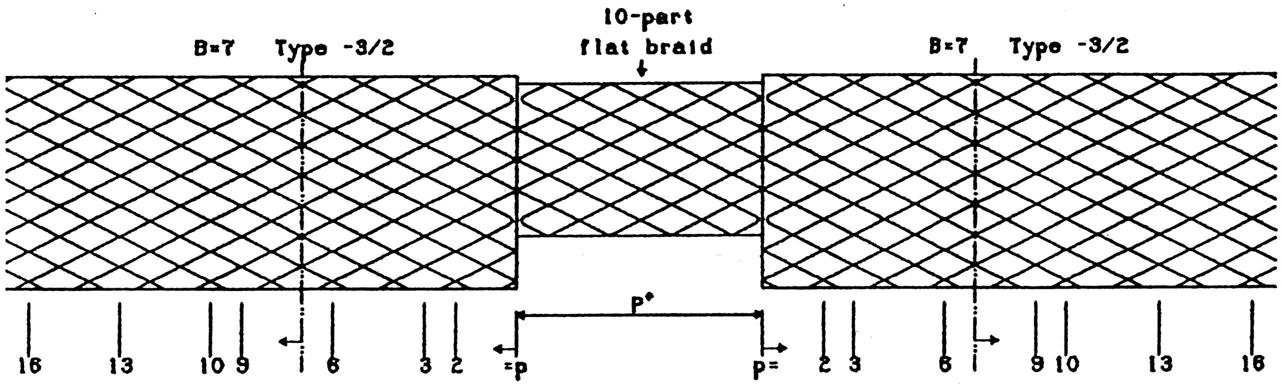
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



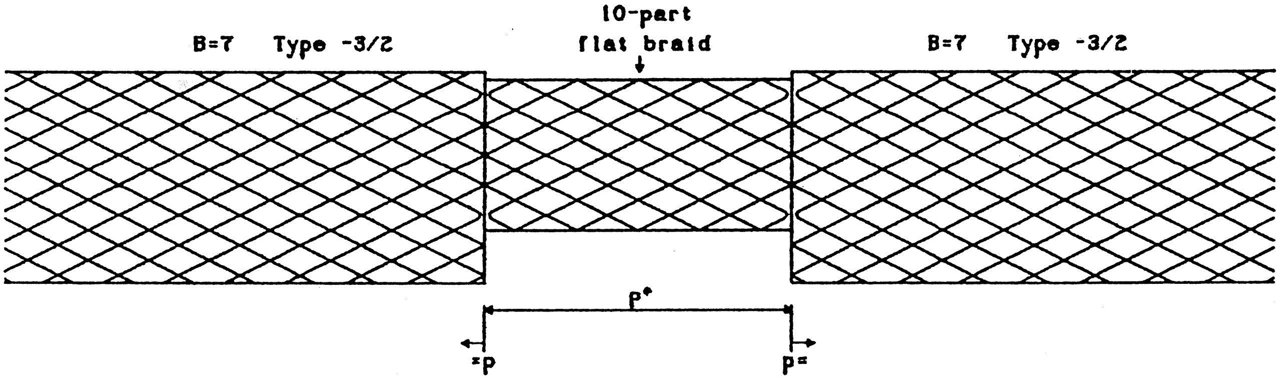
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



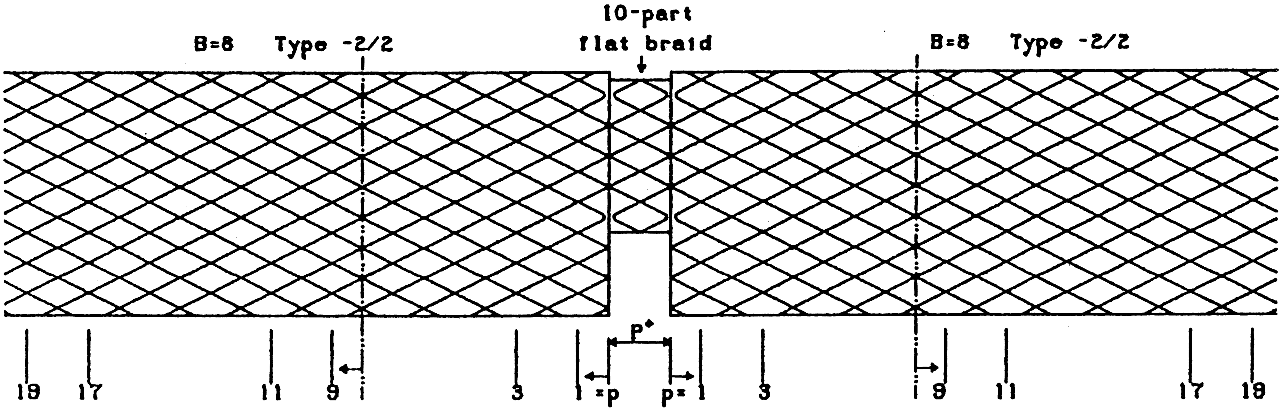
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



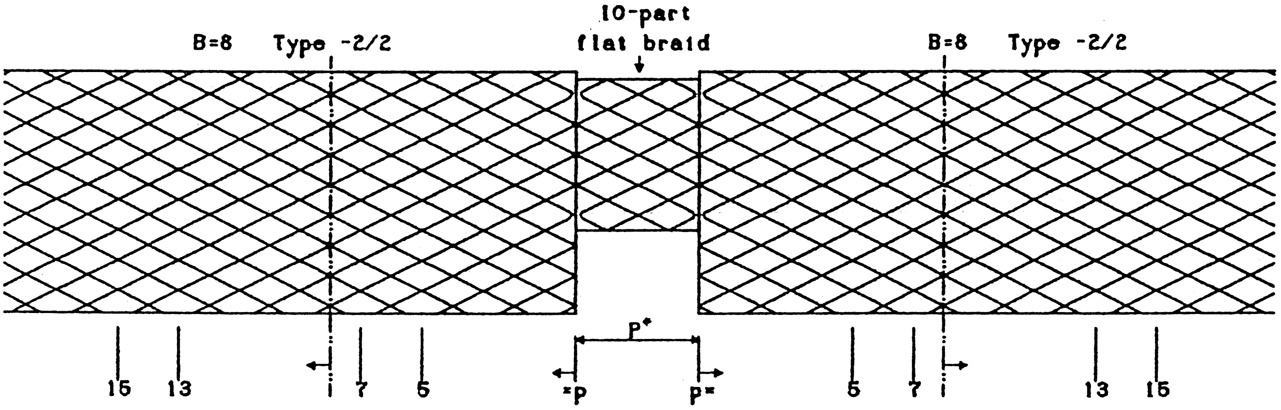
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



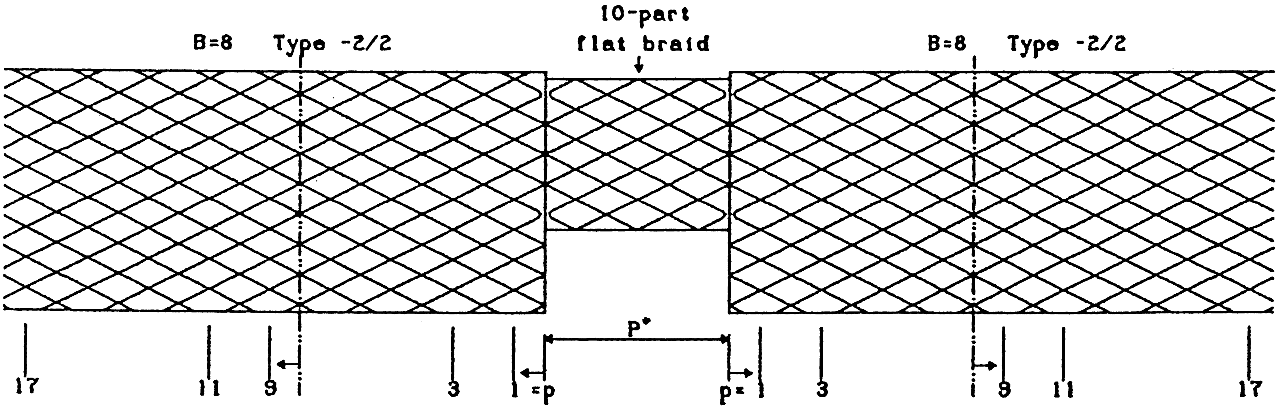
No 1-string solutions for $P^*=10n+10$ with n=0.1.2.3....



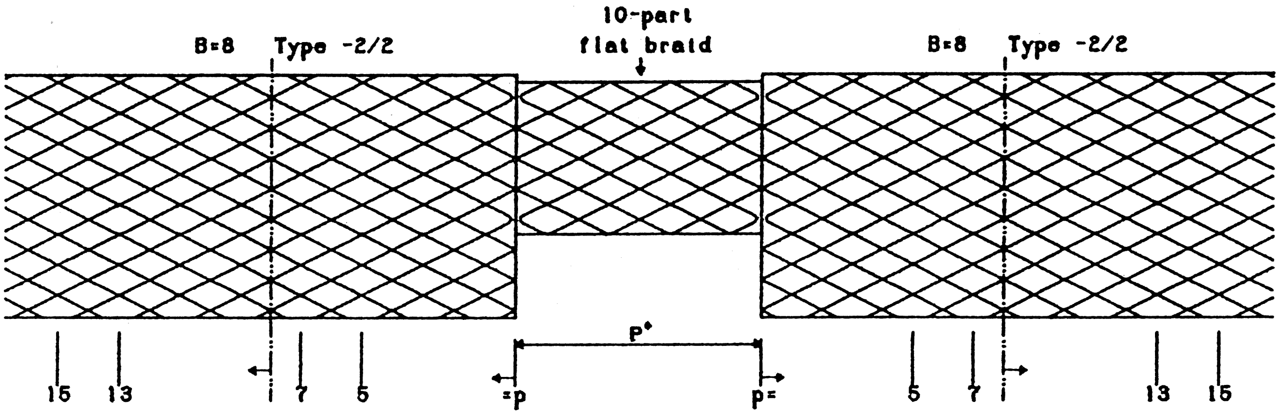
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



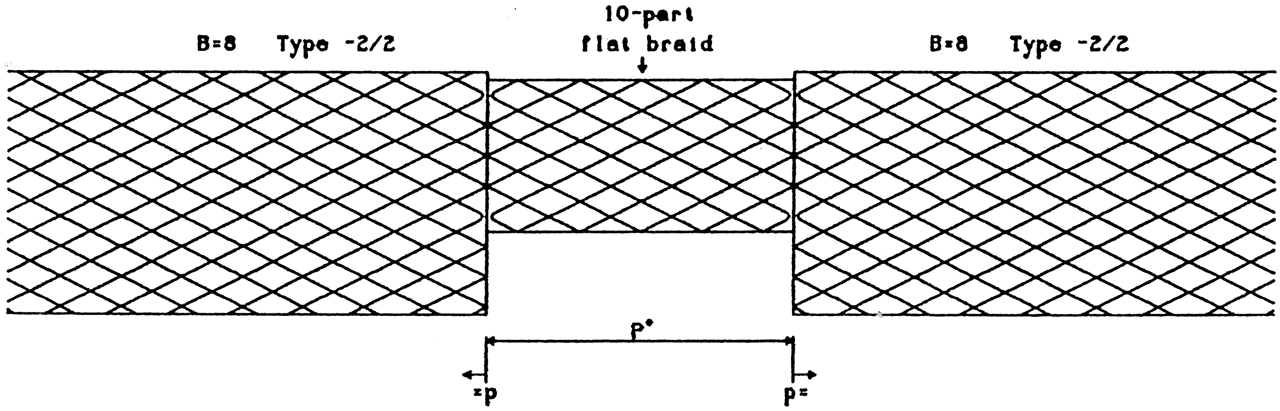
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



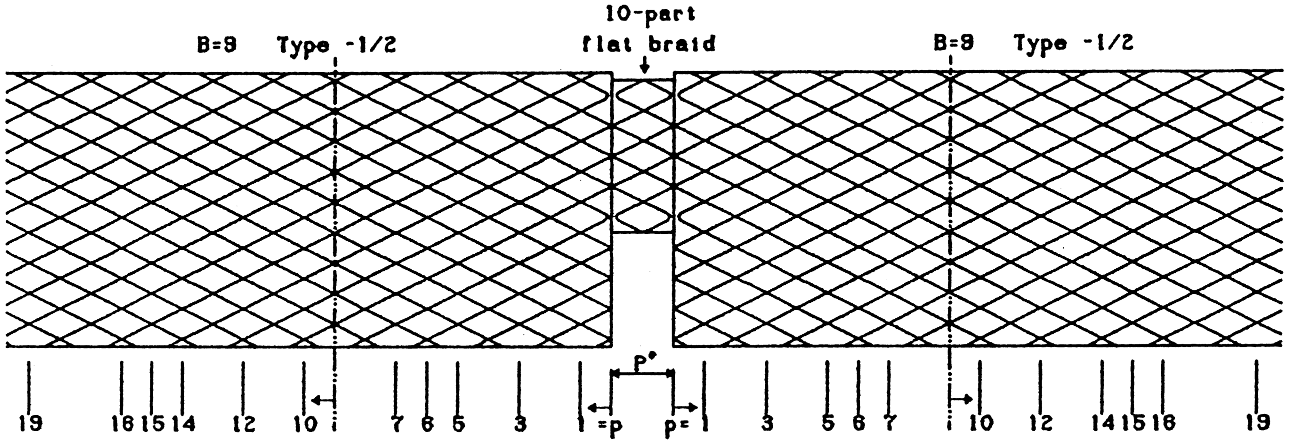
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



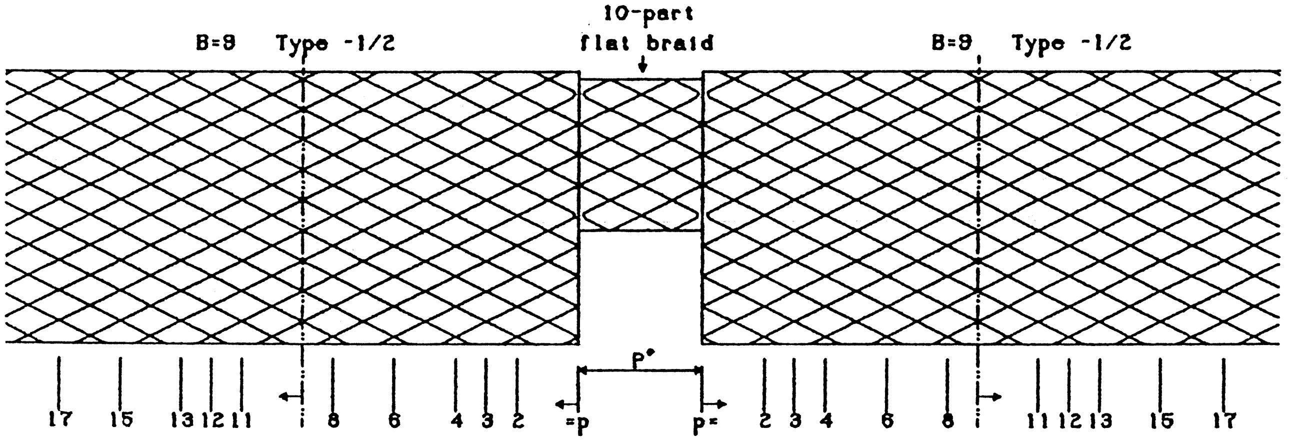
1-string solutions for $P^*=10n+8$ with n=0.1.2.3....



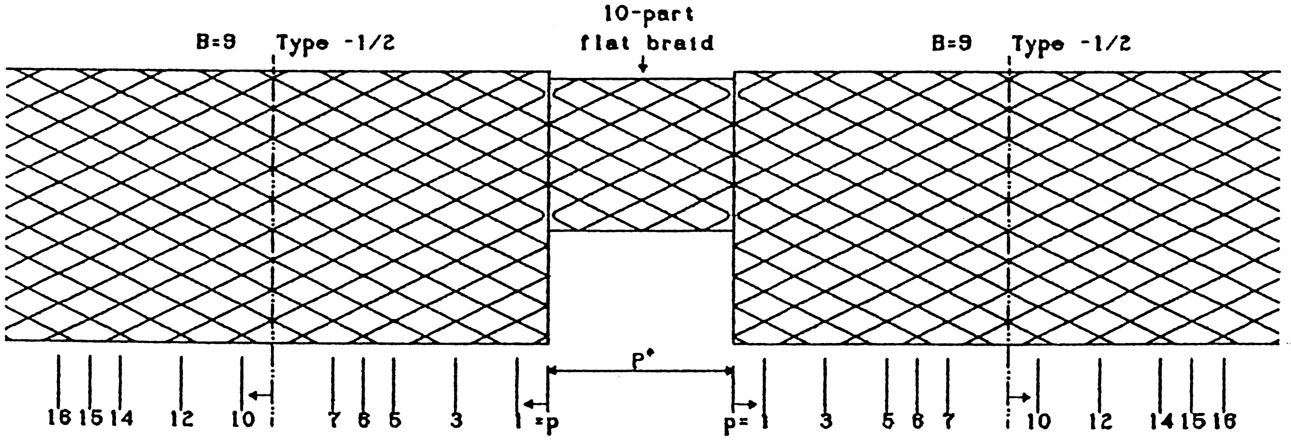
No 1-string solutions for $P^*=10n+10$ with n=0.1.2.3....


10-part
flat braid
B=9 Type -1/2
B=9 Type -1/2
P*
19 16 15 14 12 10 i 7 6 5 3 1 =p p= 1 3 5 6 7 i 10 12 14 15 16 19

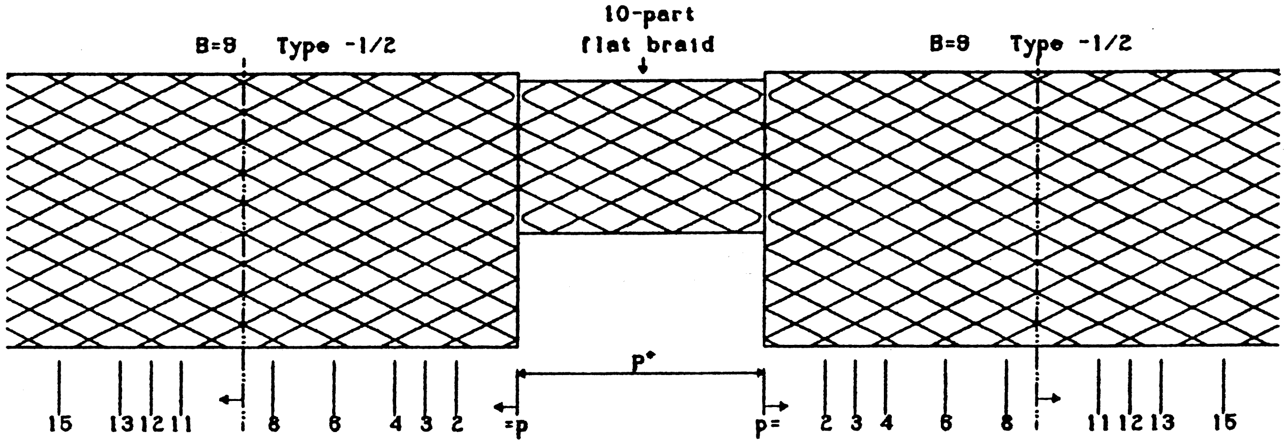
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



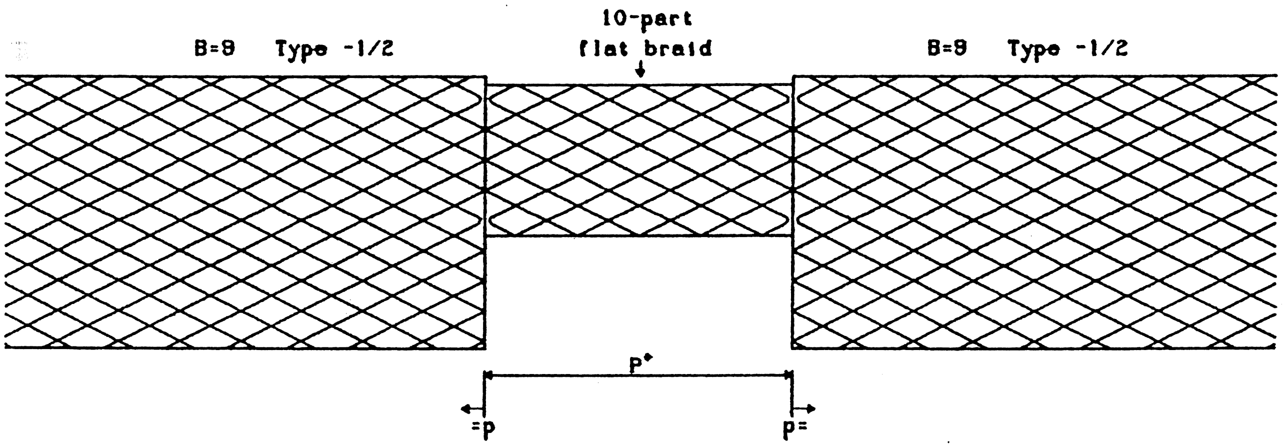
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



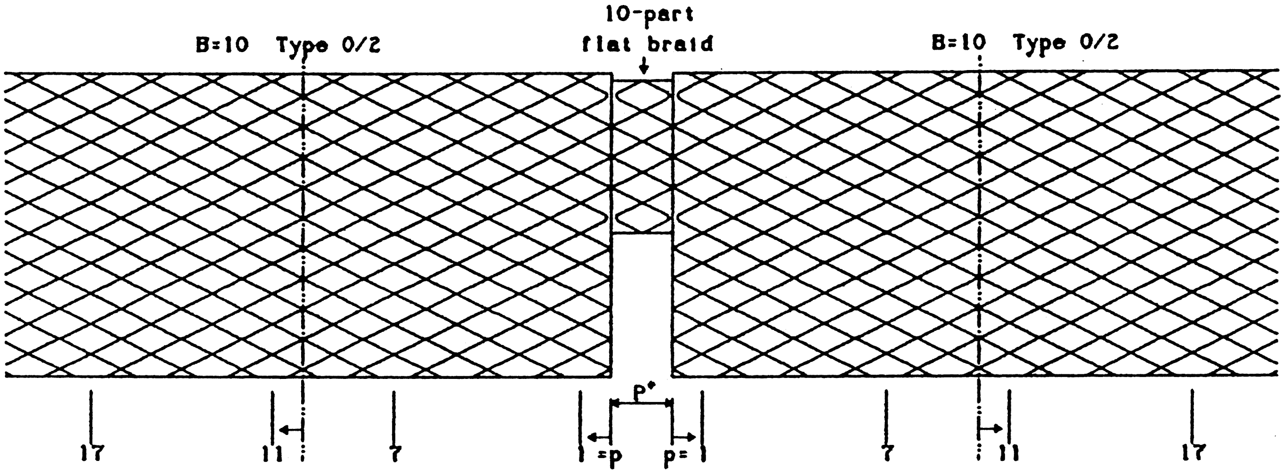
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



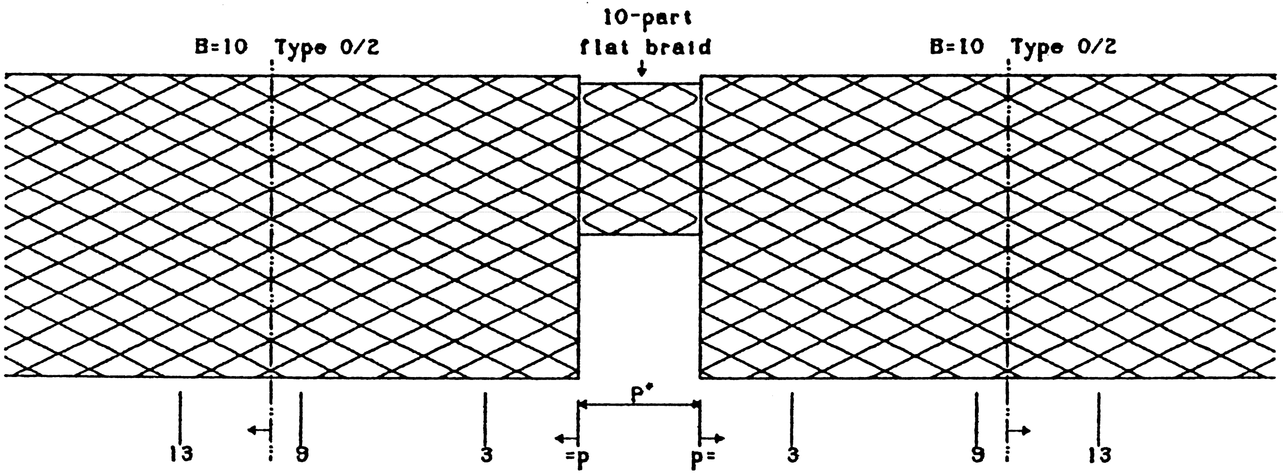
1-string solutions for $P^*=10n+8$ with $n=0.1.2.3....$



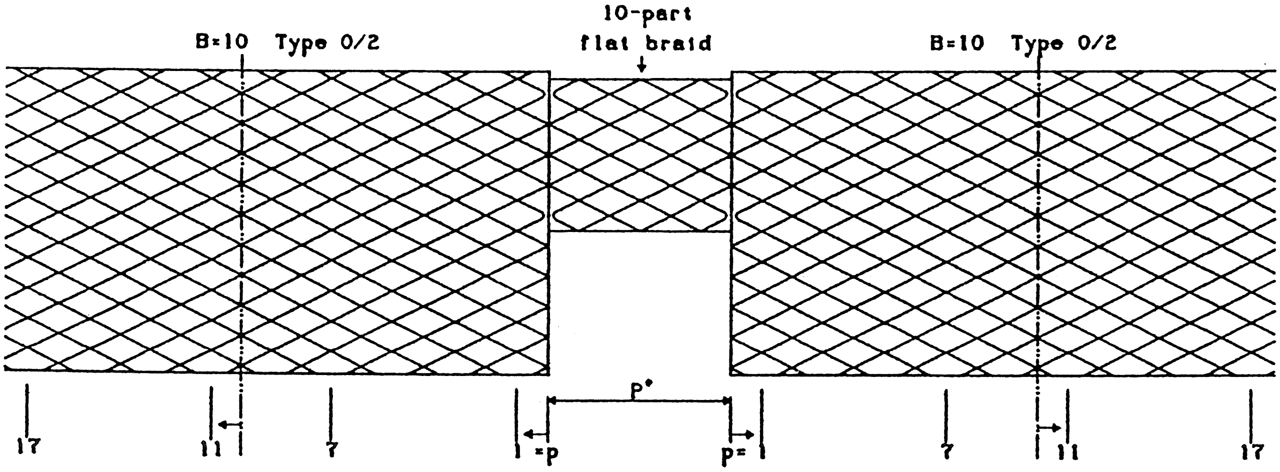
No 1-string solutions for $P^*=10n+10$ with $n=0.1.2.3....$



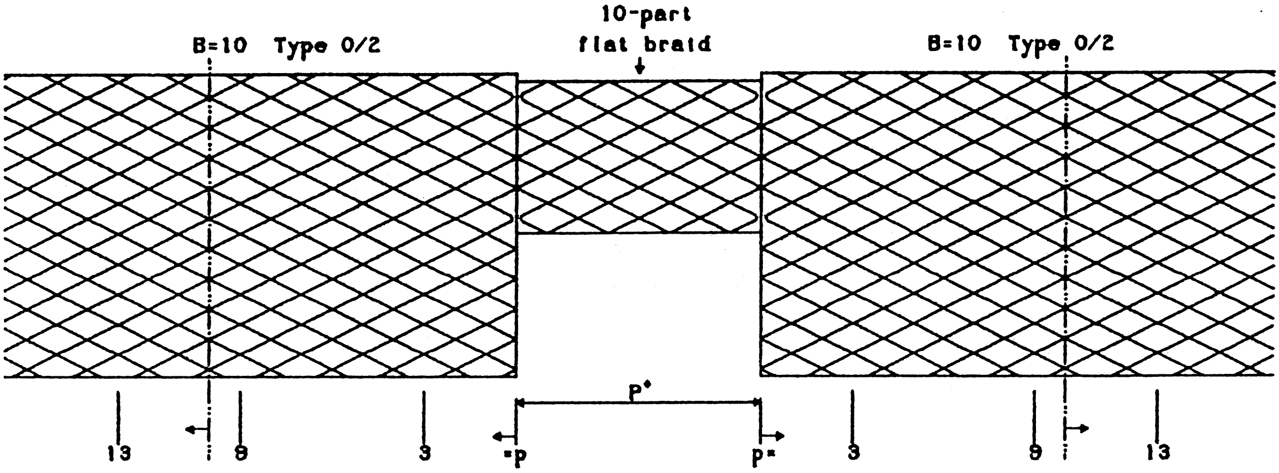
1-string solutions for $P^*=10n+2$ with n=0.1.2.3....



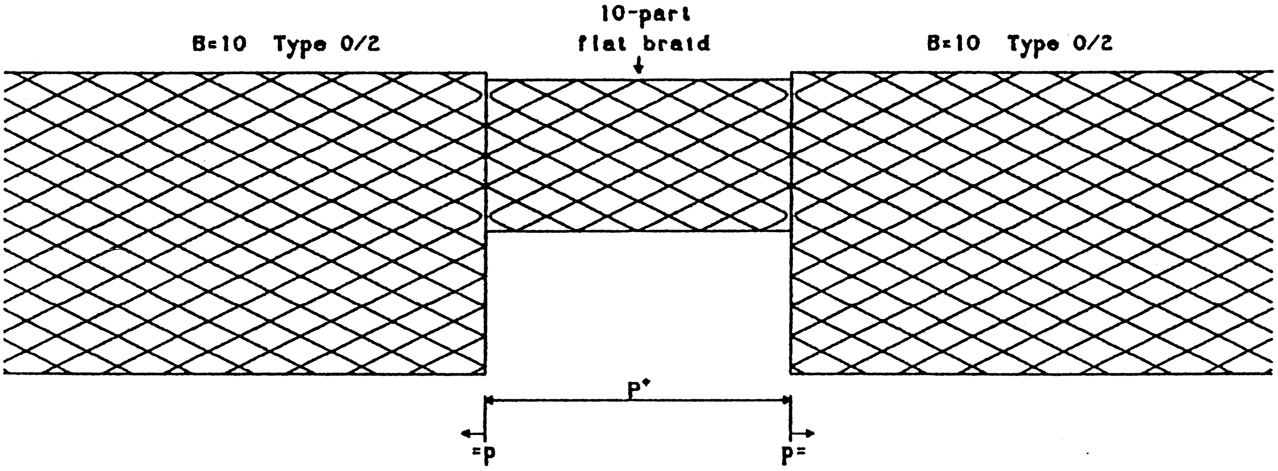
1-string solutions for $P^*=10n+4$ with n=0.1.2.3....



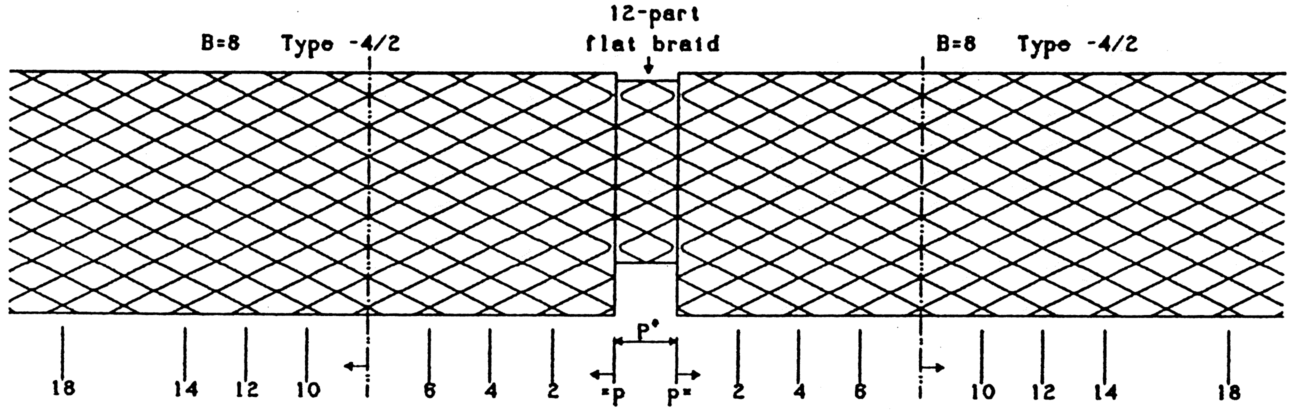
1-string solutions for $P^*=10n+6$ with n=0.1.2.3....



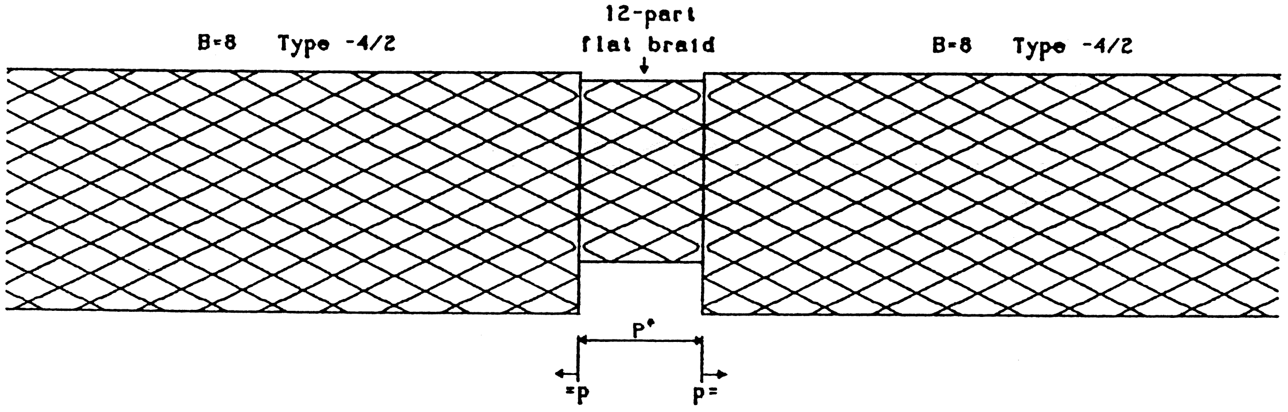
1-string solutions for $P^* = 10n + 8$ with n=0.1.2.3....



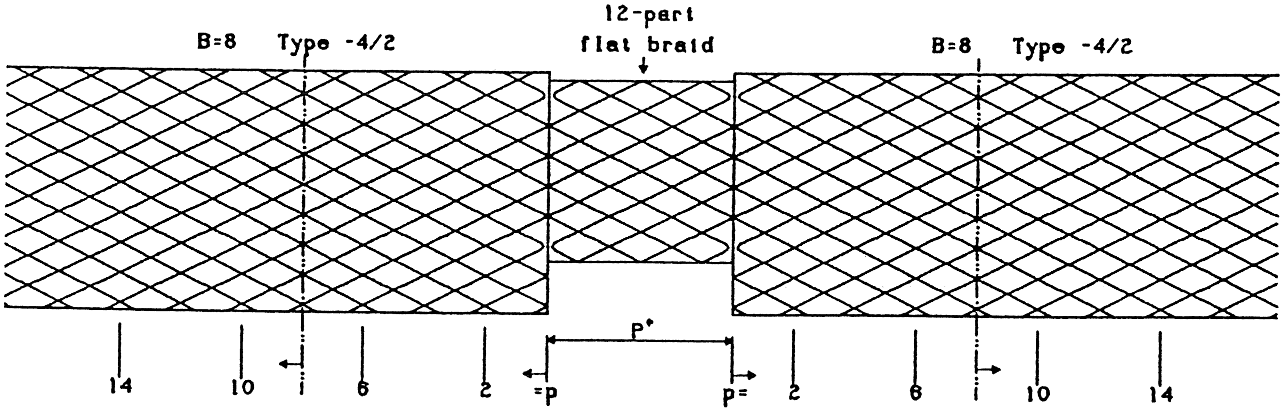
No 1-string solutions for $P^* = 10n + 10$ with n=0.1.2.3....



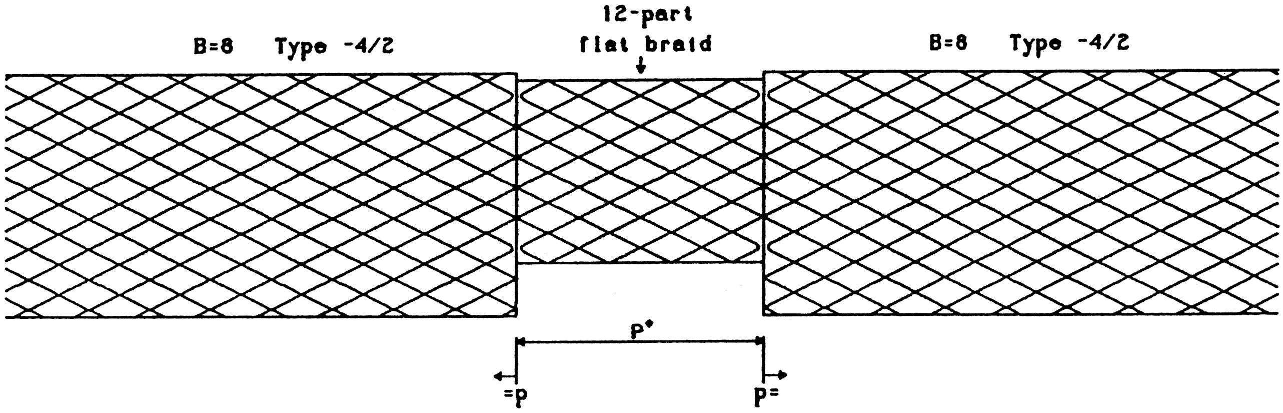
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



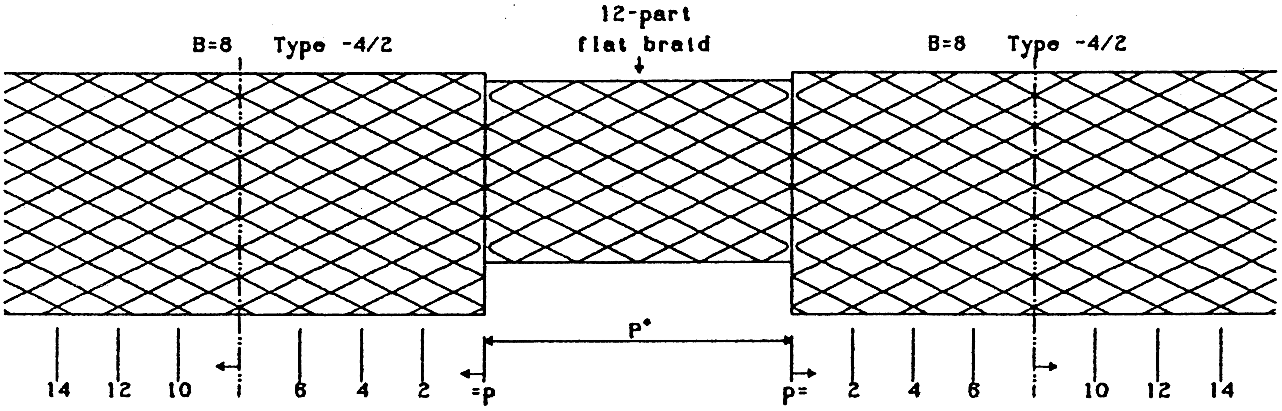
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



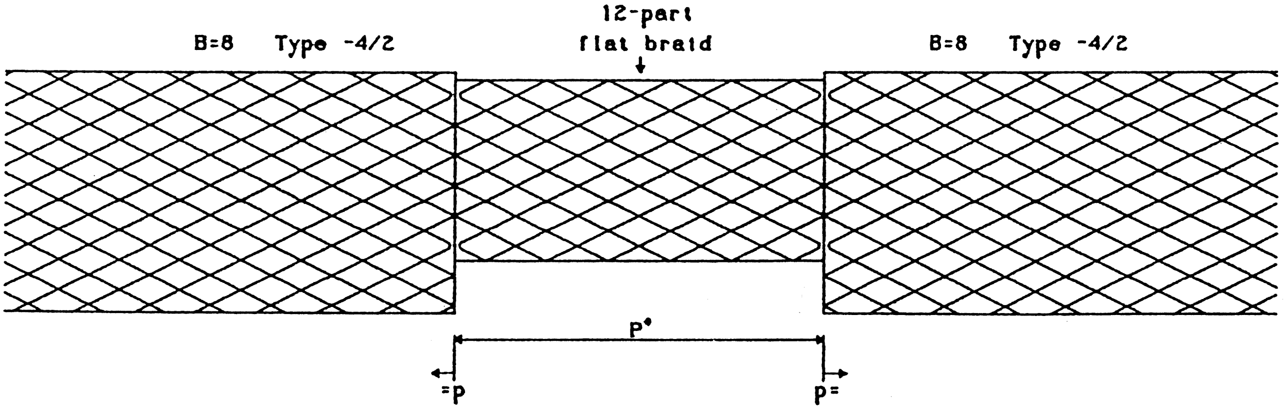
1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



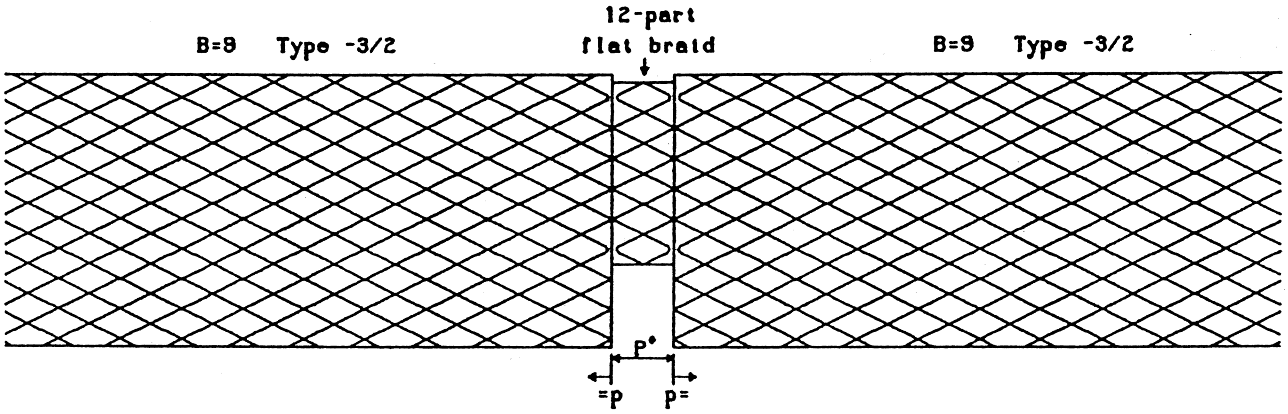
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



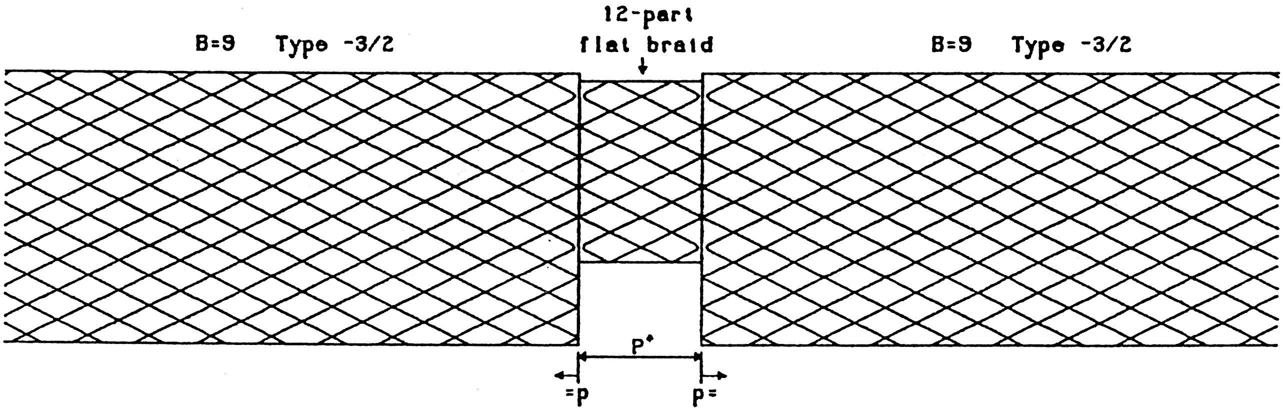
1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



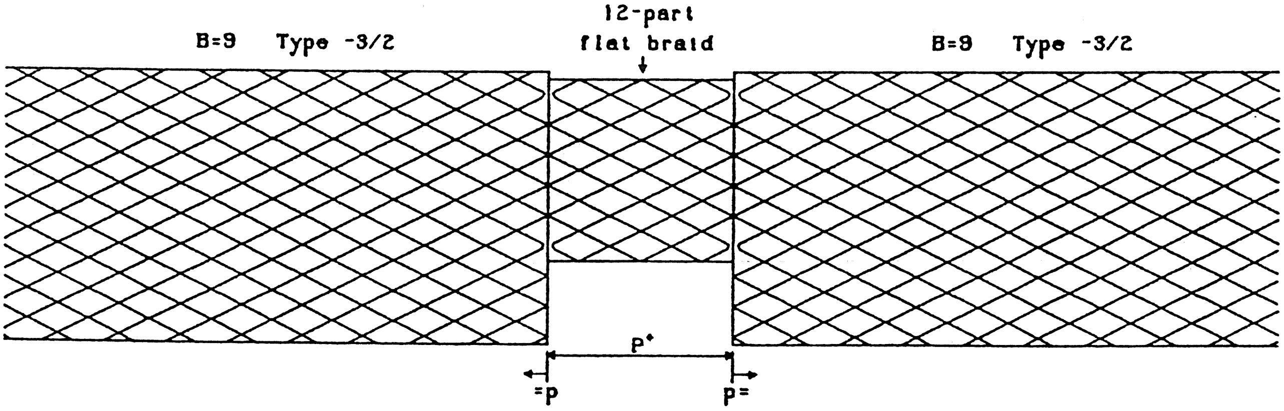
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



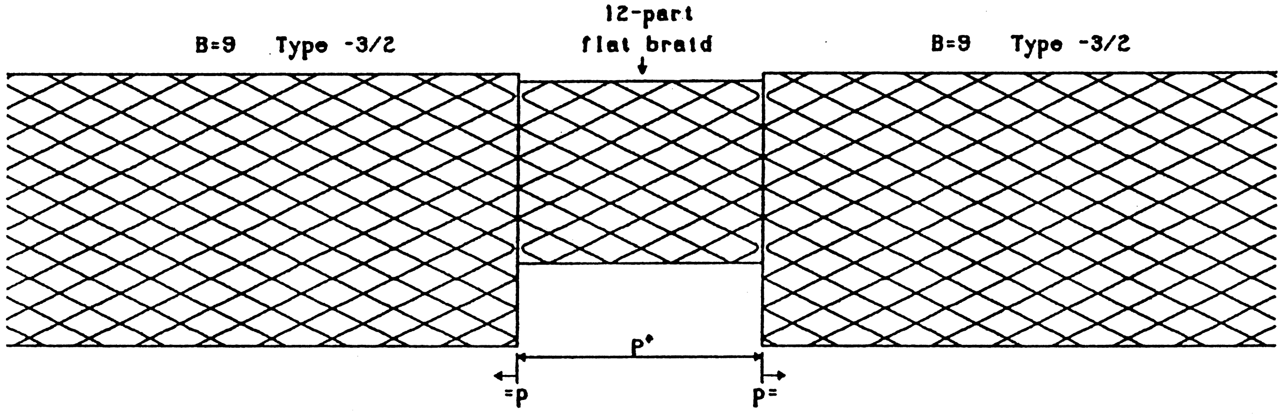
NO 1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



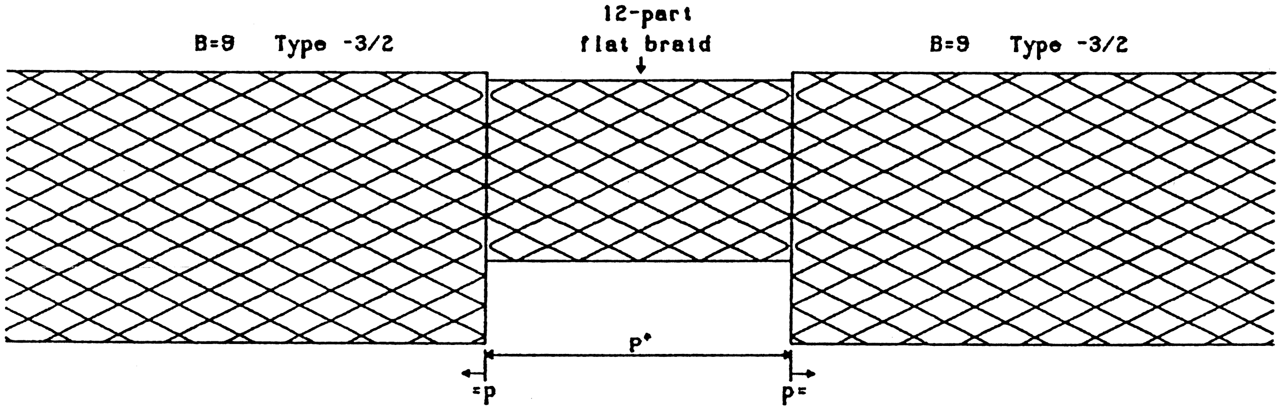
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



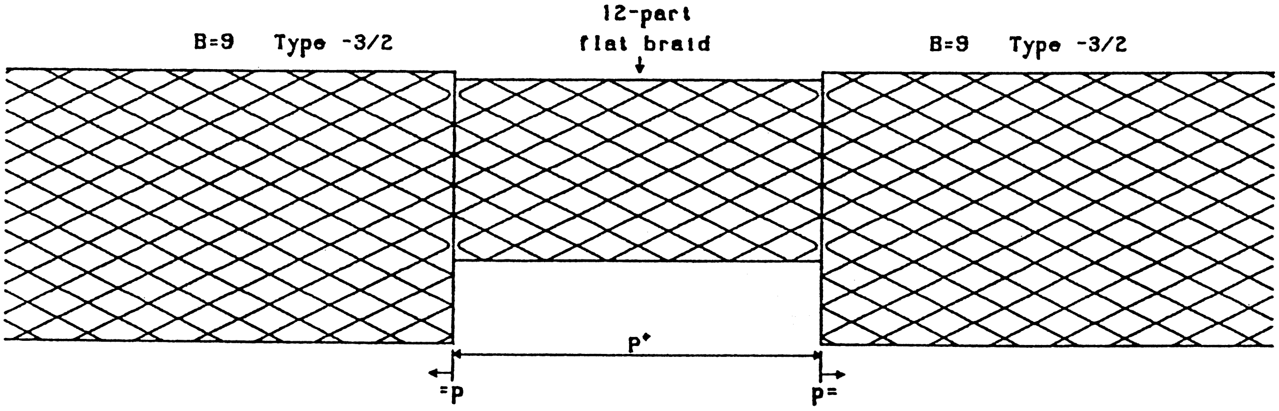
NO 1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



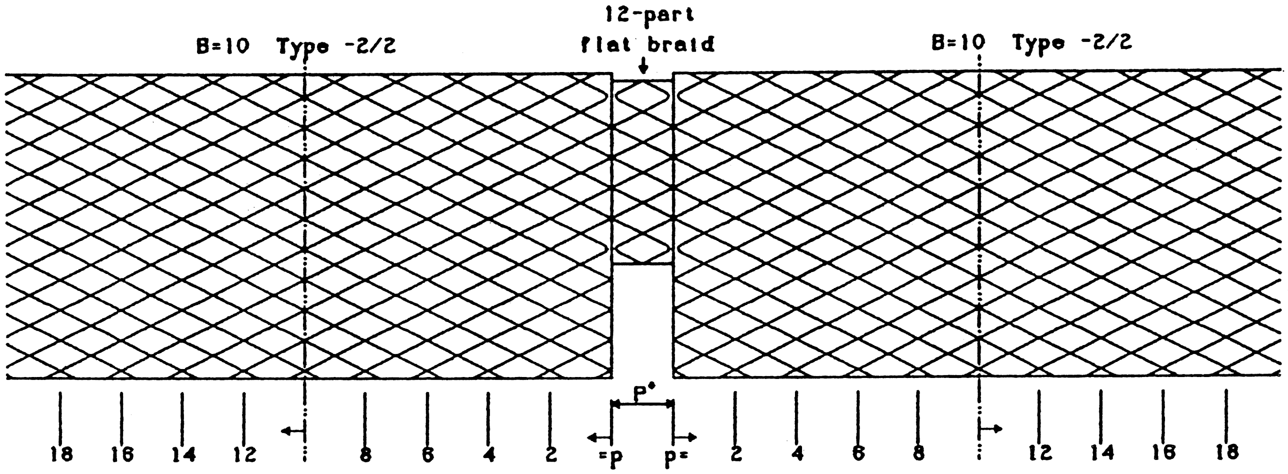
NO 1-string solutions for $P^*=12n+8$ with n=0,1,2,3....



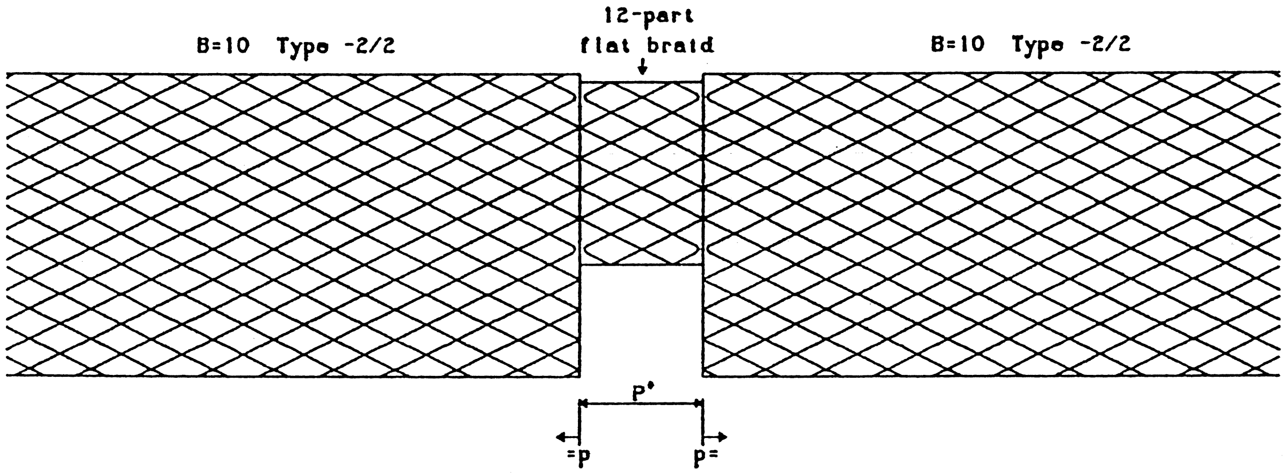
NO 1-string solutions for $P^*=12n+10$ with n=0,1,2,3....



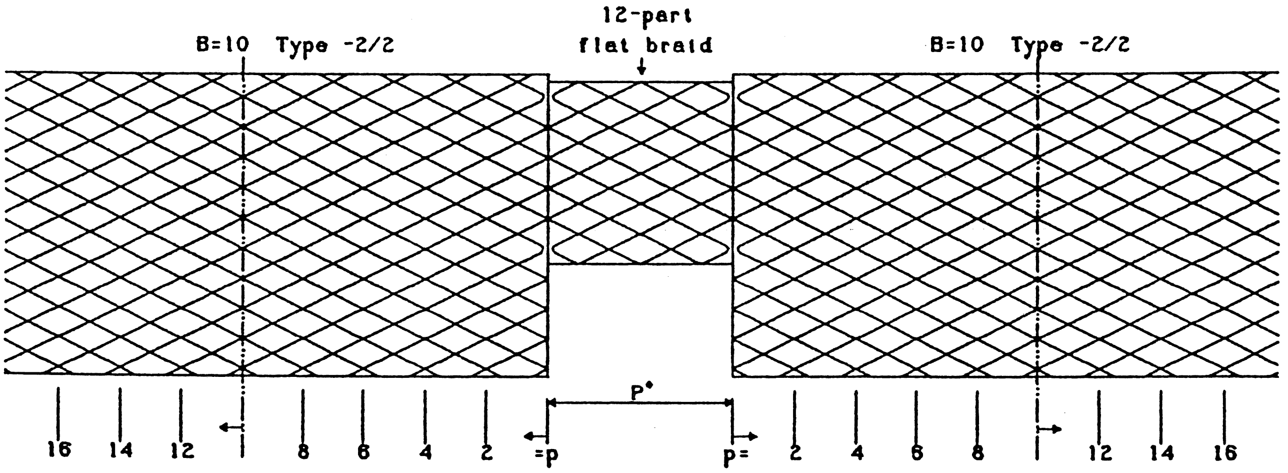
NO 1-string solutions for $P^*=12n+12$ with n=0,1,2,3....



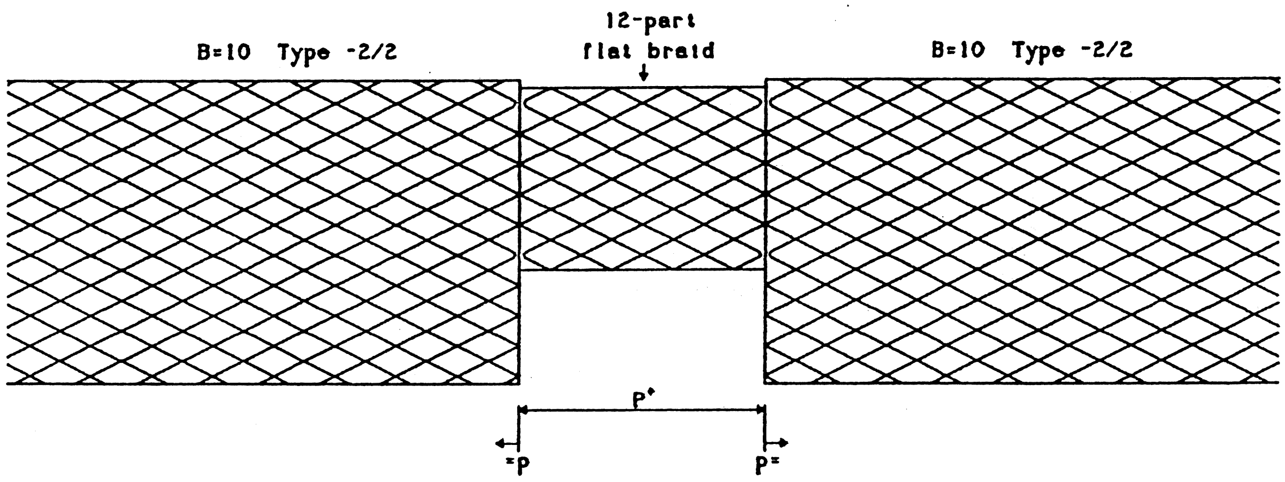
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



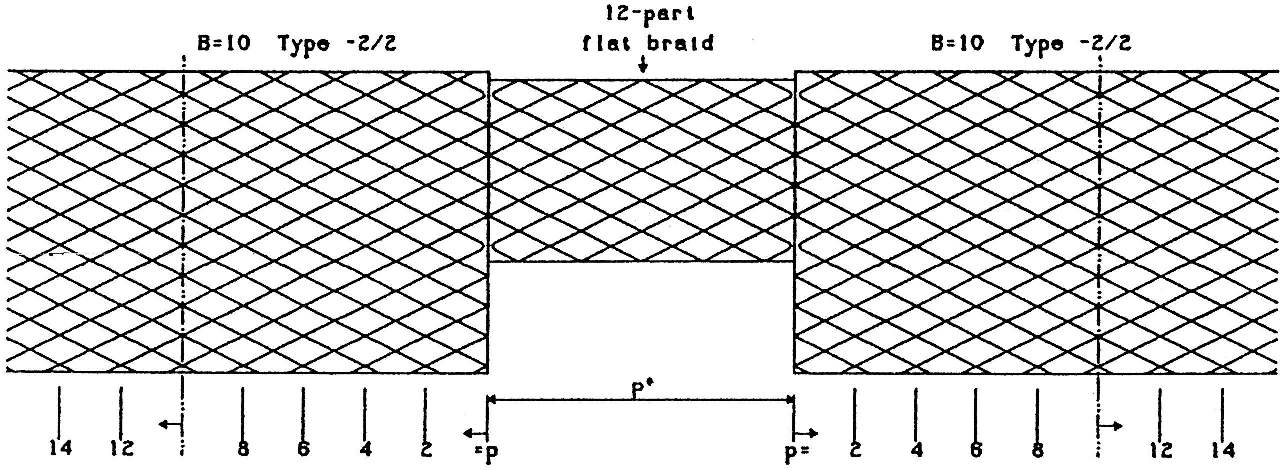
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



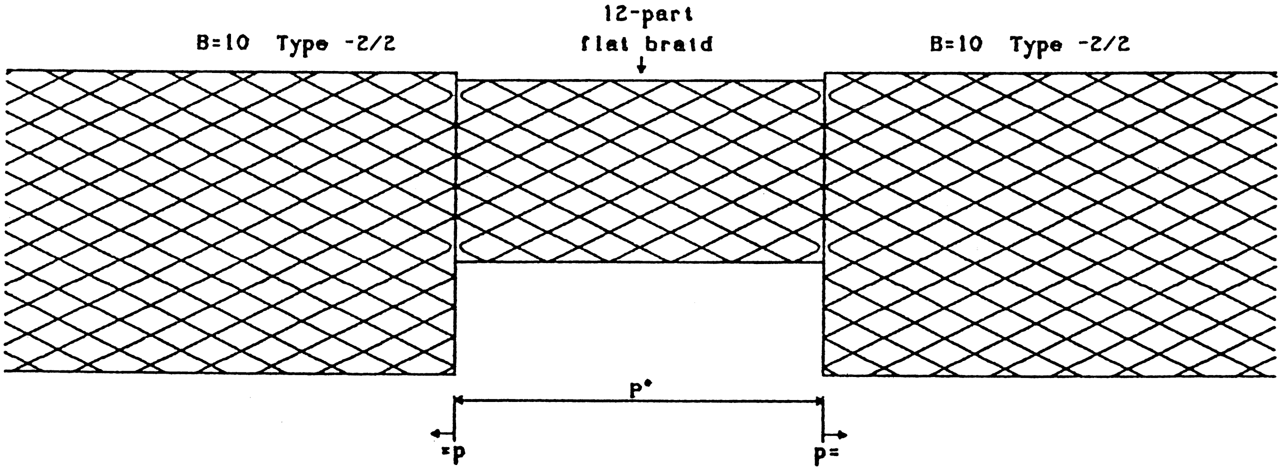
1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



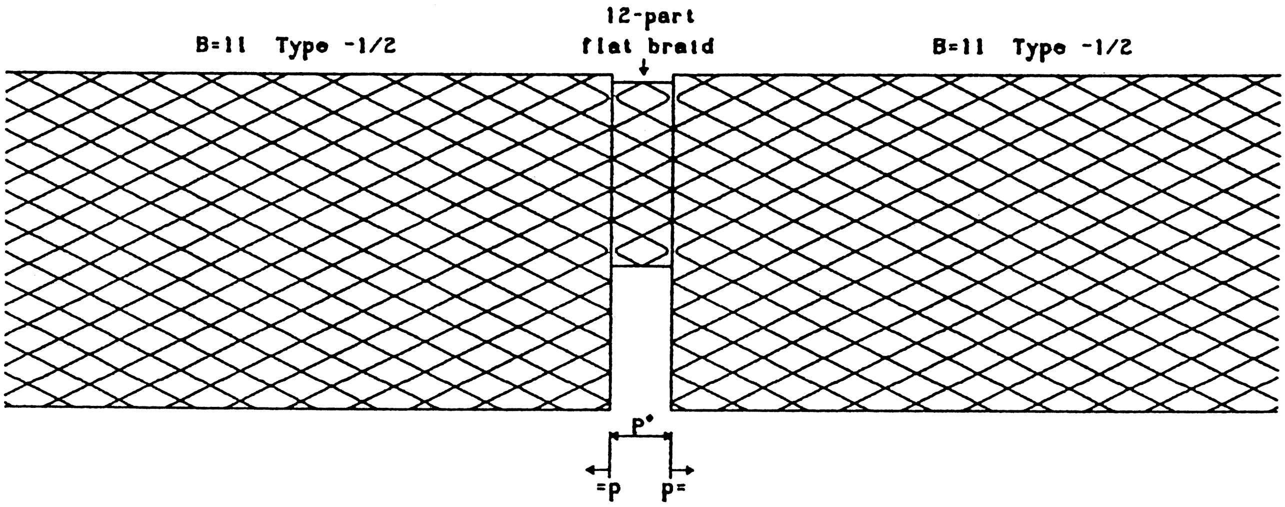
NO 1-string solutions for $P^{*}=12n+8$ with n=0.1.2.3....



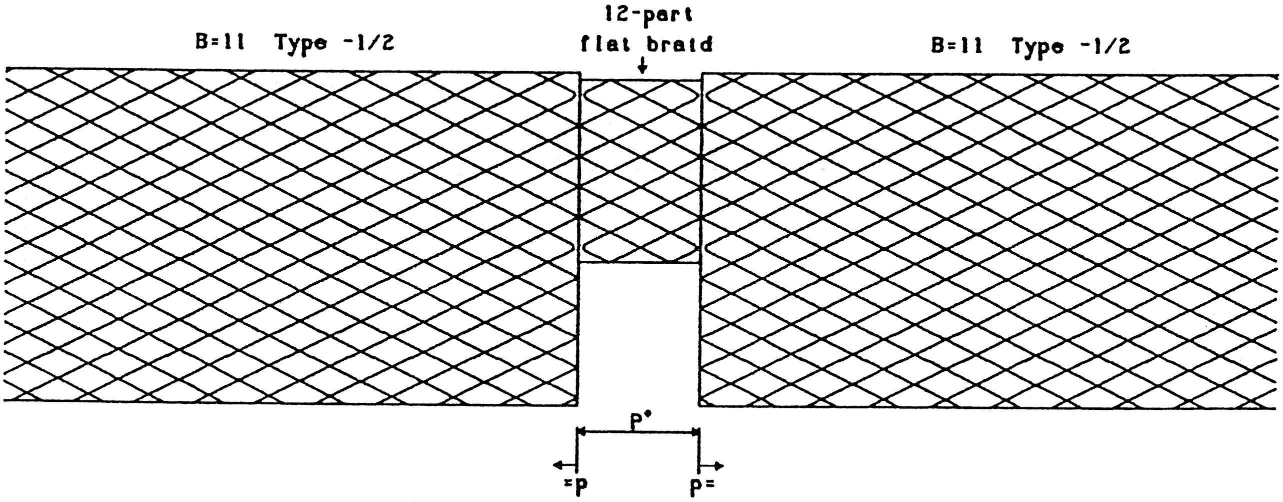
1-string solutions for $P^{*}=12n+10$ with n=0.1.2.3....



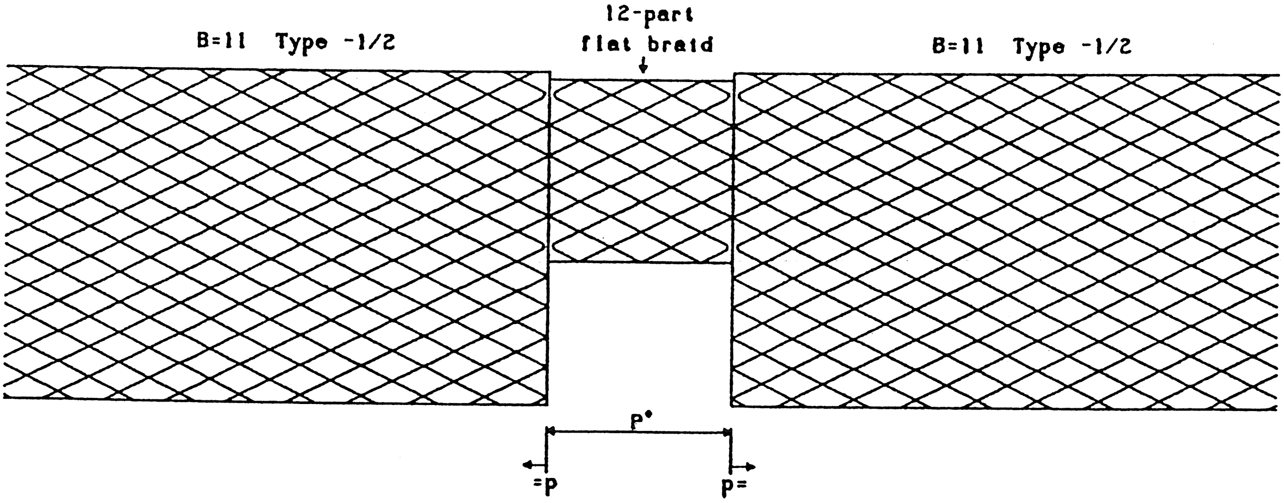
NO 1-string solutions for $P^{*}=12n+12$ with n=0.1.2.3....



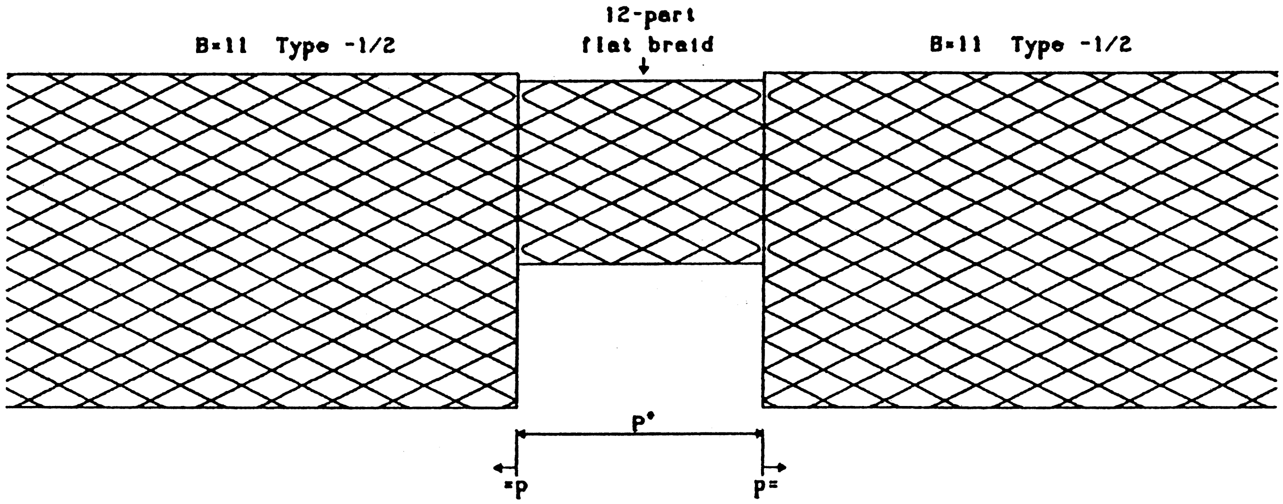
NO 1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



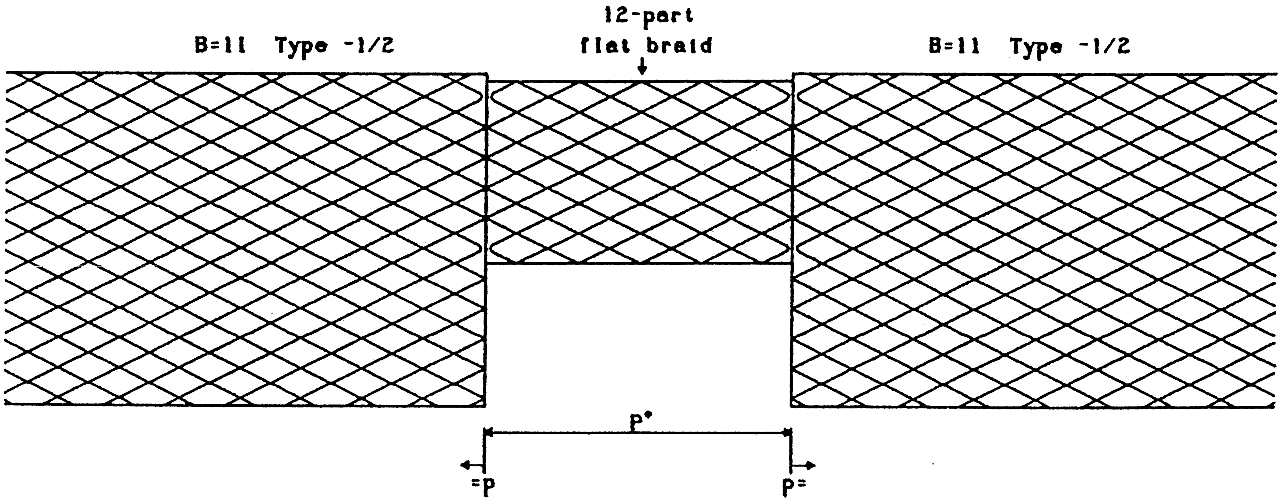
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



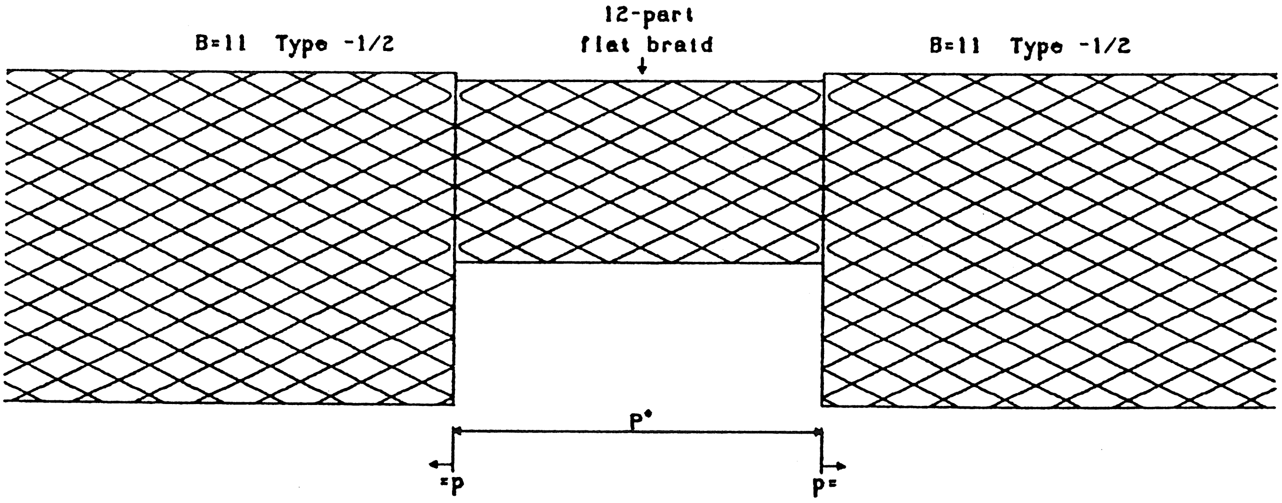
NO 1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



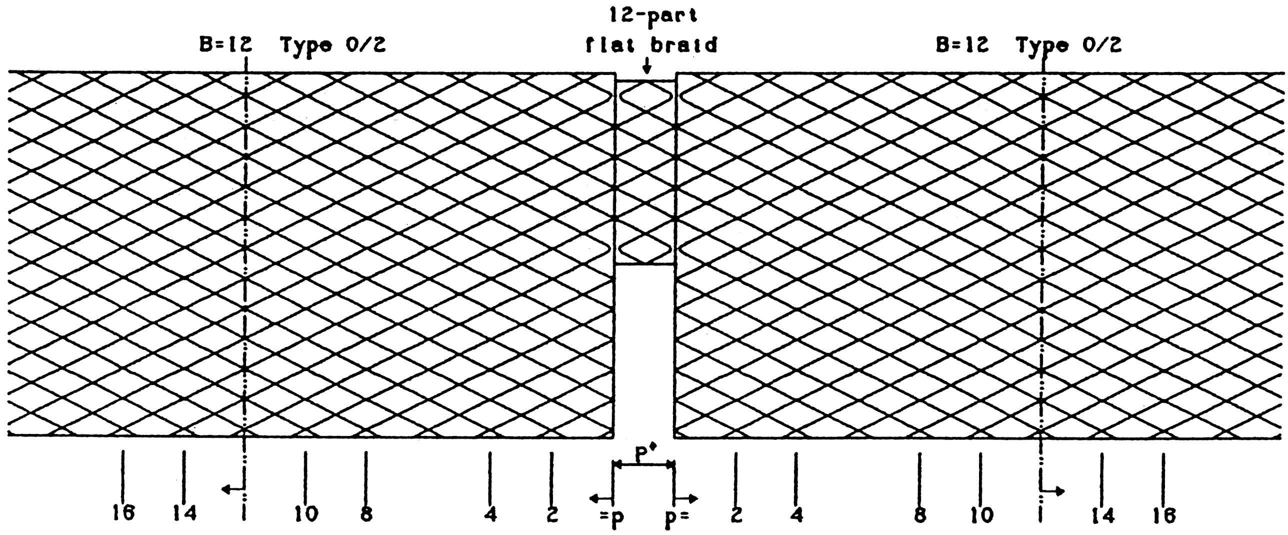
NO 1-string solutions for $P^*=12n+8$ with $n=0.1.2.3....$



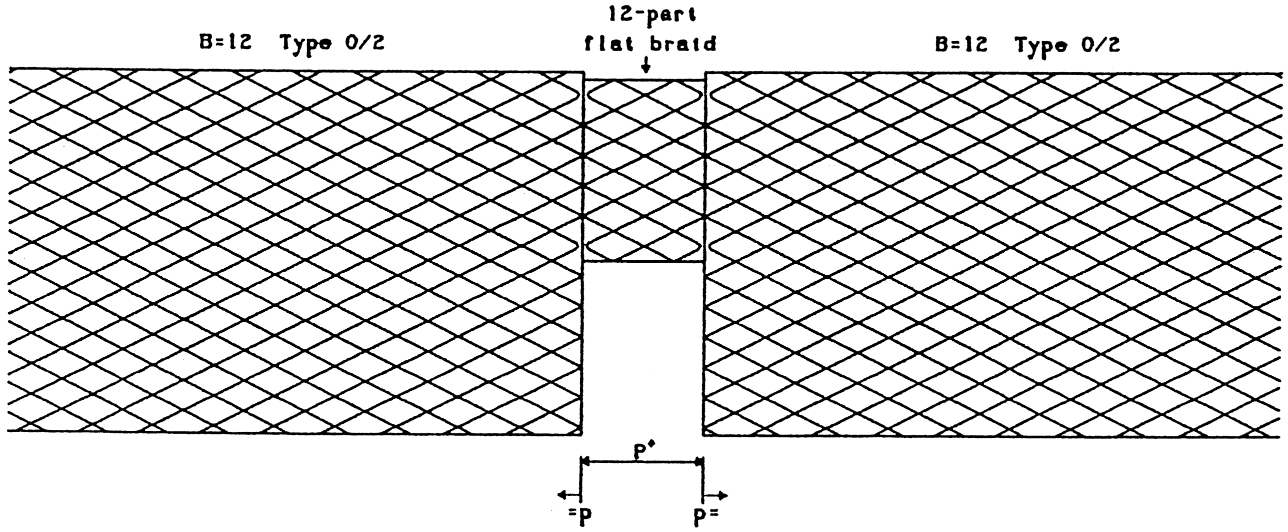
NO 1-string solutions for $P^*=12n+10$ with $n=0.1.2.3....$



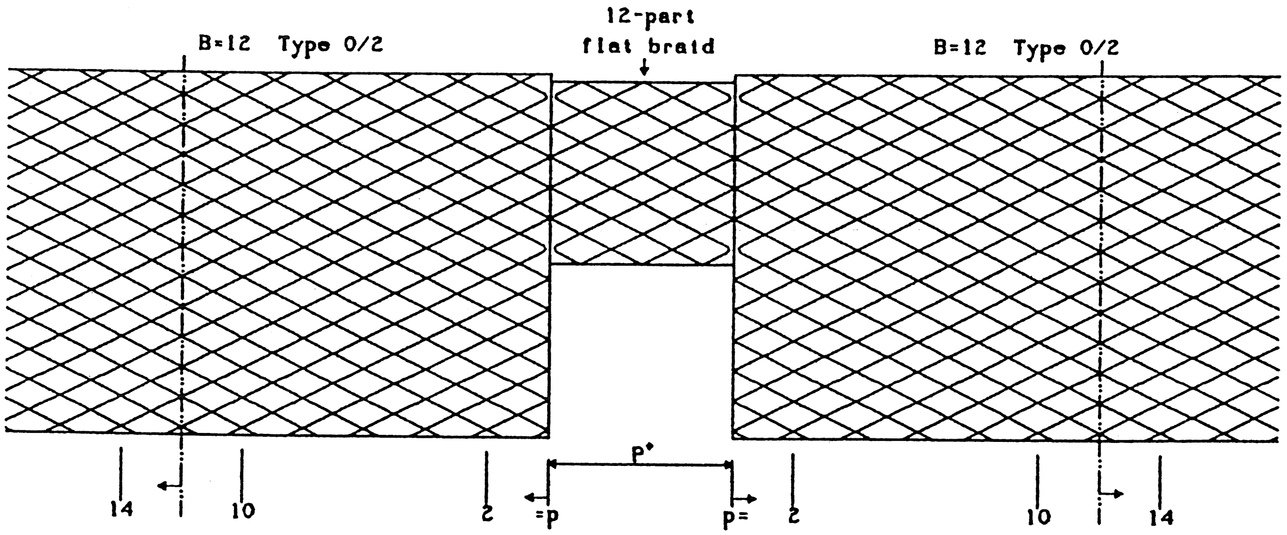
NO 1-string solutions for $P^*=12n+12$ with $n=0.1.2.3....$



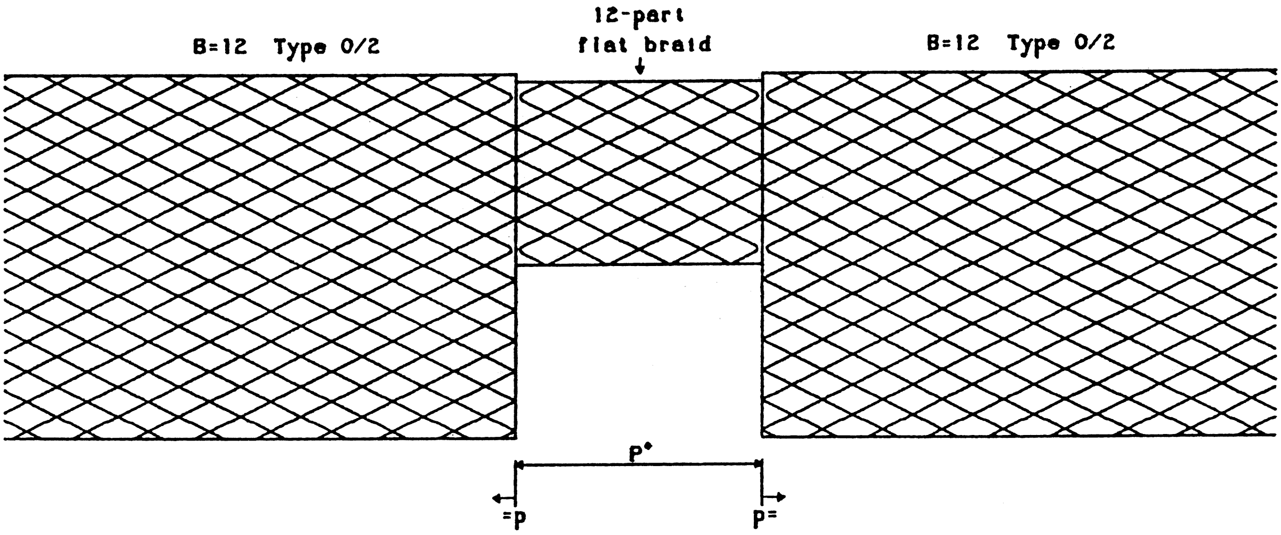
1-string solutions for $P^*=12n+2$ with n=0.1.2.3....



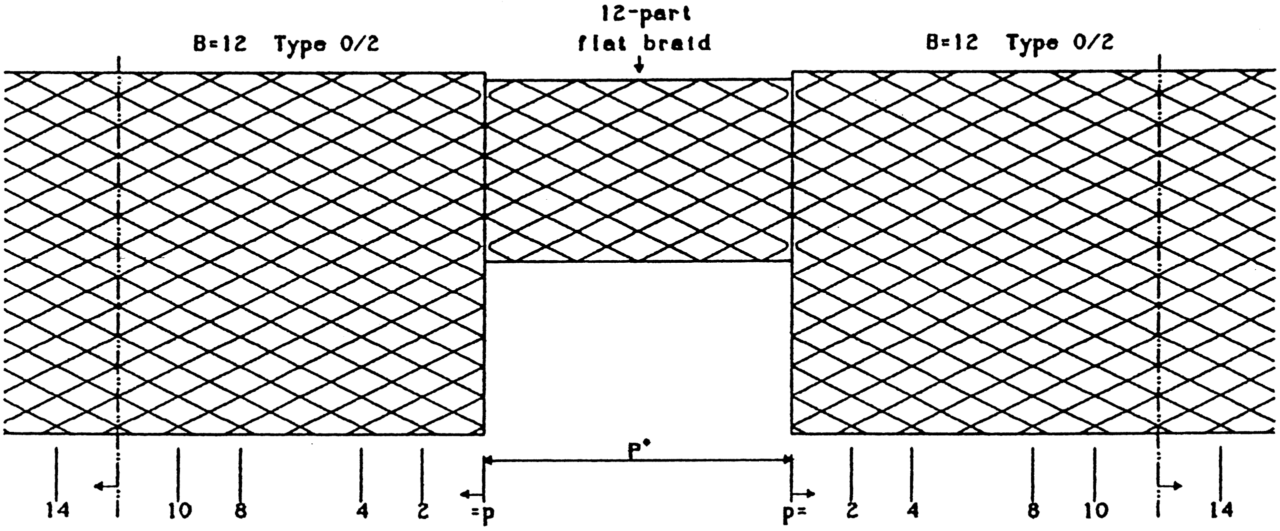
NO 1-string solutions for $P^*=12n+4$ with n=0.1.2.3....



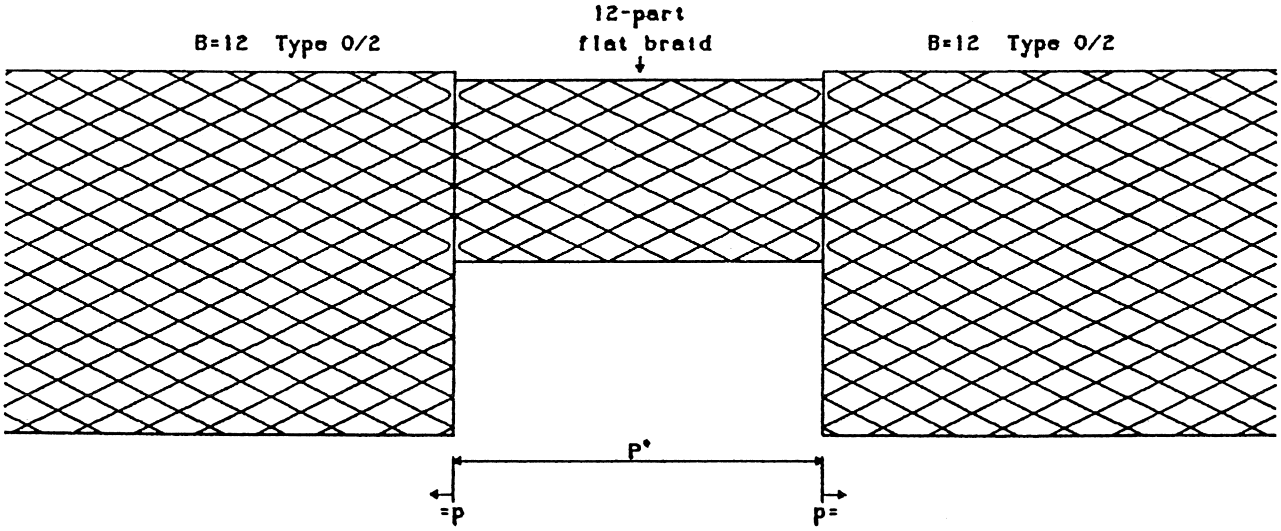
1-string solutions for $P^*=12n+6$ with n=0.1.2.3....



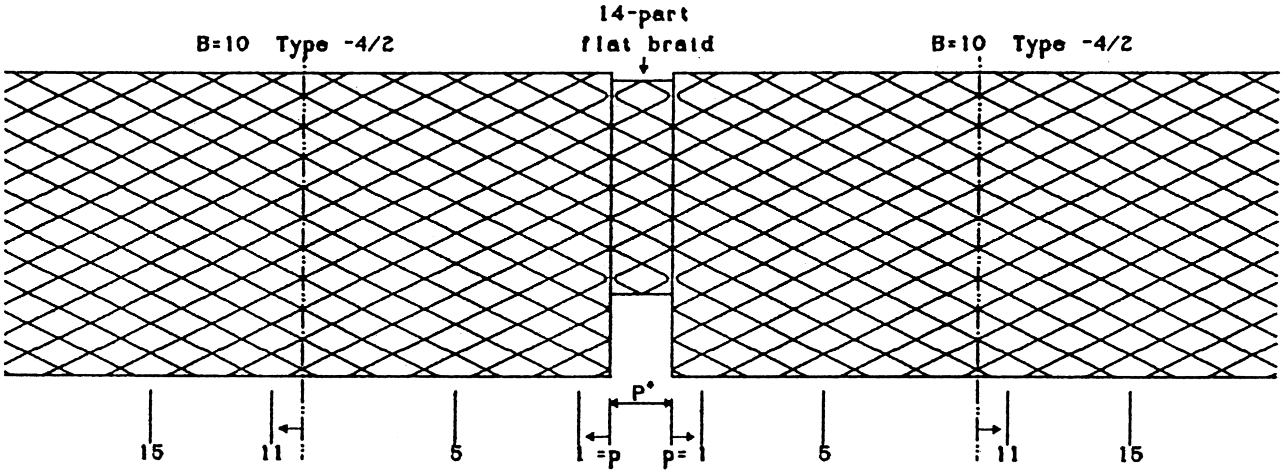
NO 1-string solutions for $P^*=12n+8$ with n=0.1.2.3....



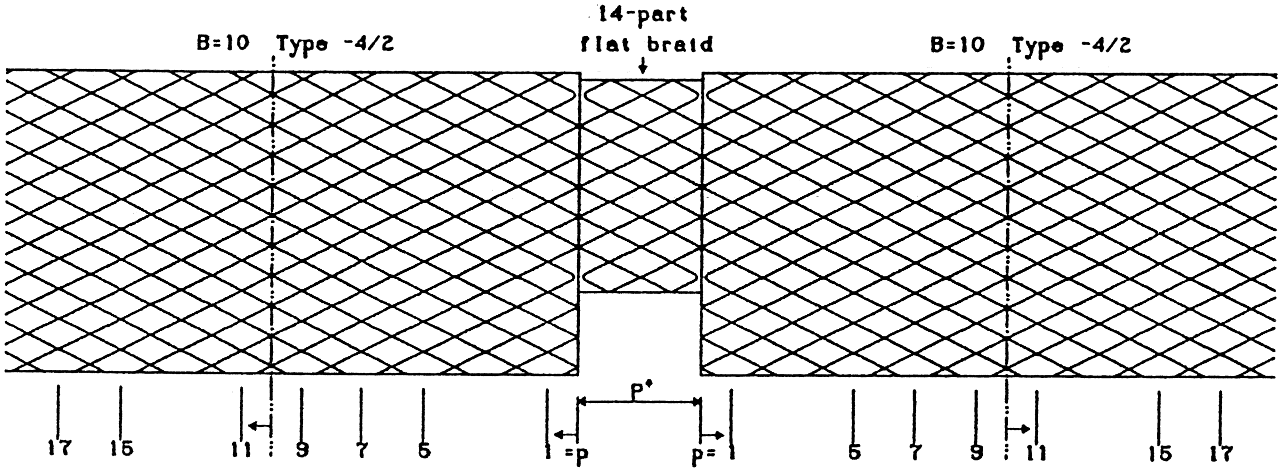
1-string solutions for $P^*=12n+10$ with n=0.1.2.3....



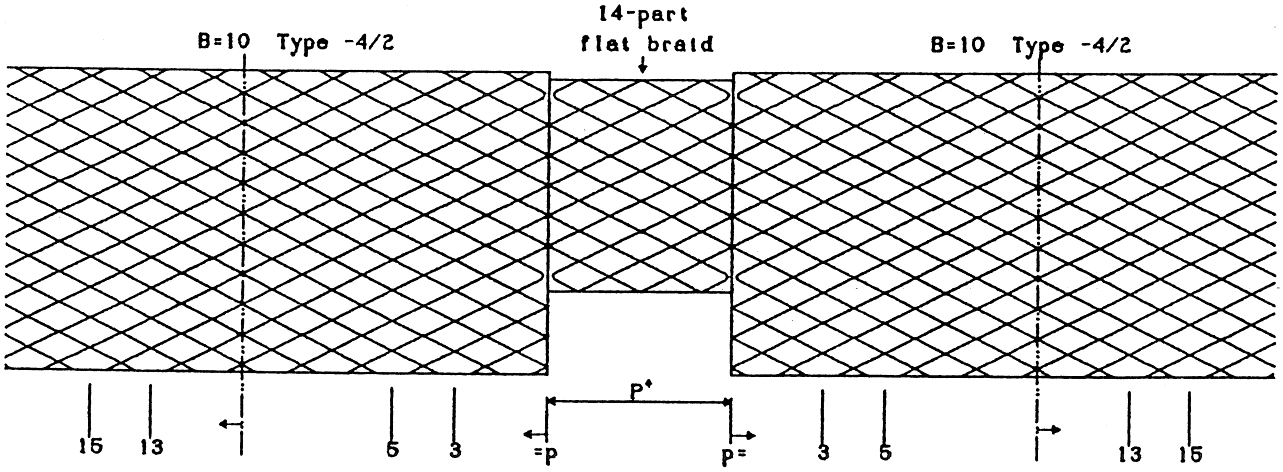
NO 1-string solutions for $P^*=12n+12$ with n=0.1.2.3....



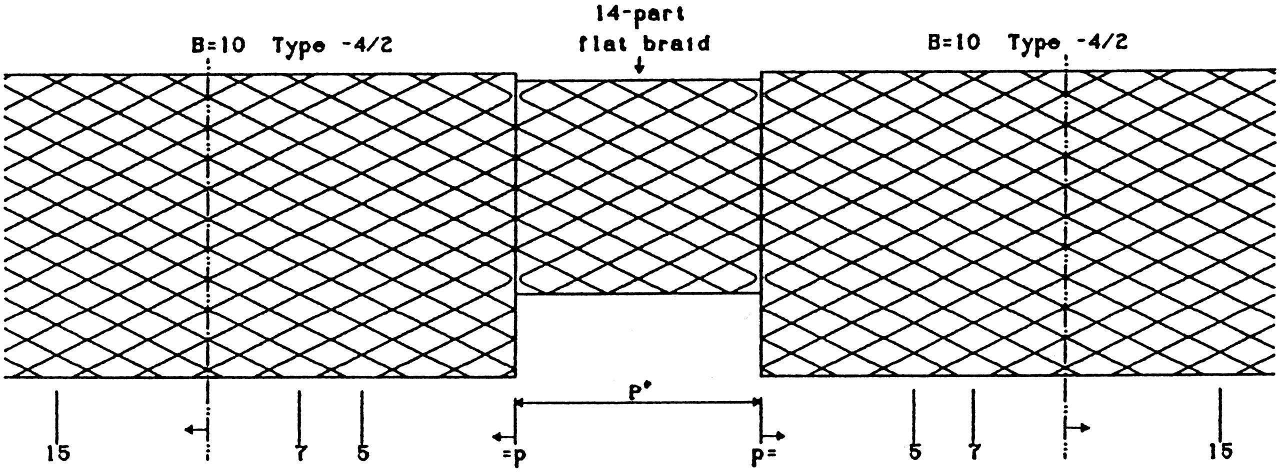
1-string solutions for $P^*=14n+2$ with $n=0.1.2.3....$



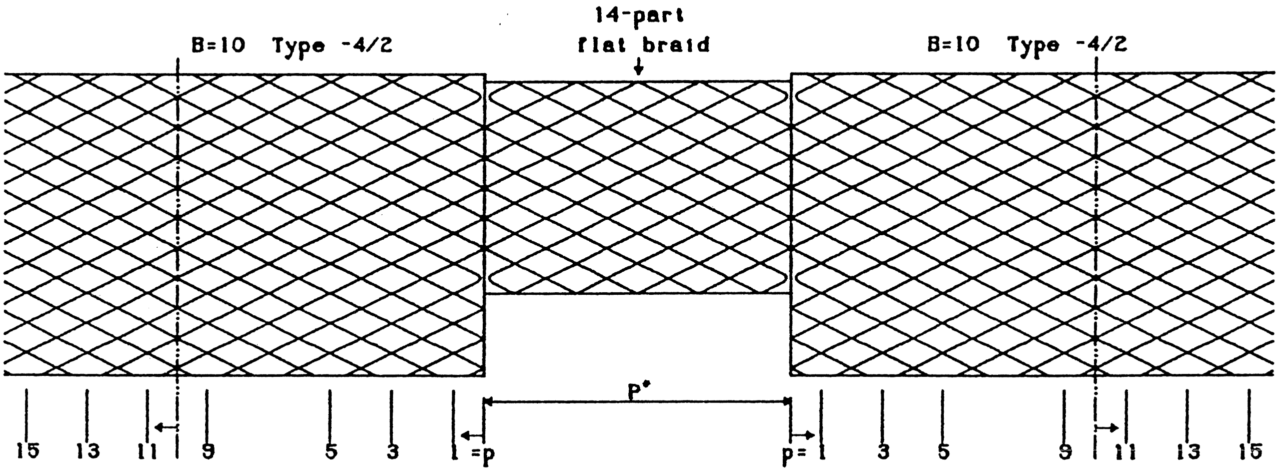
1-string solutions for $P^*=14n+4$ with $n=0.1.2.3....$



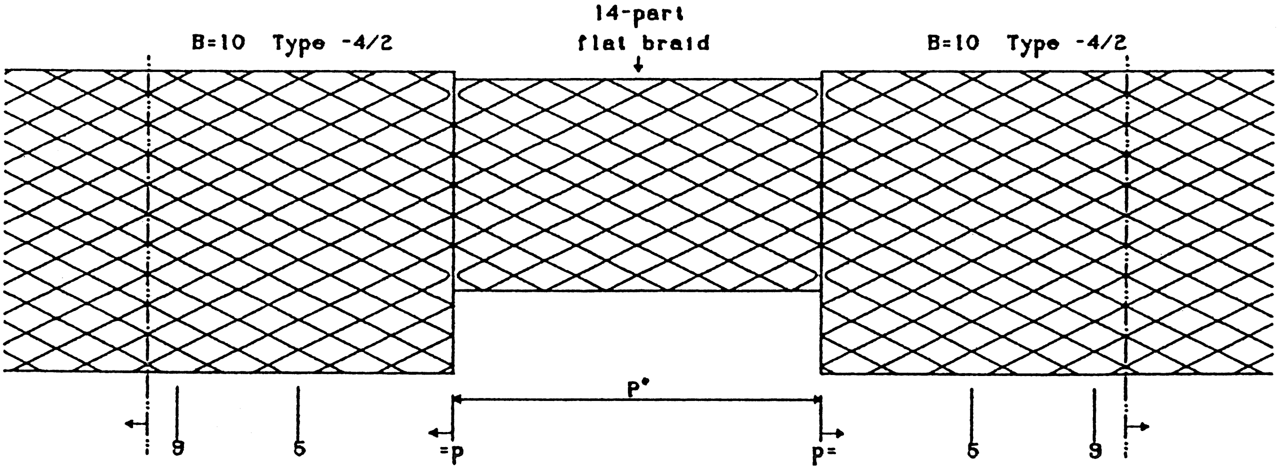
1-string solutions for $P^*=14n+6$ with $n=0.1.2.3....$



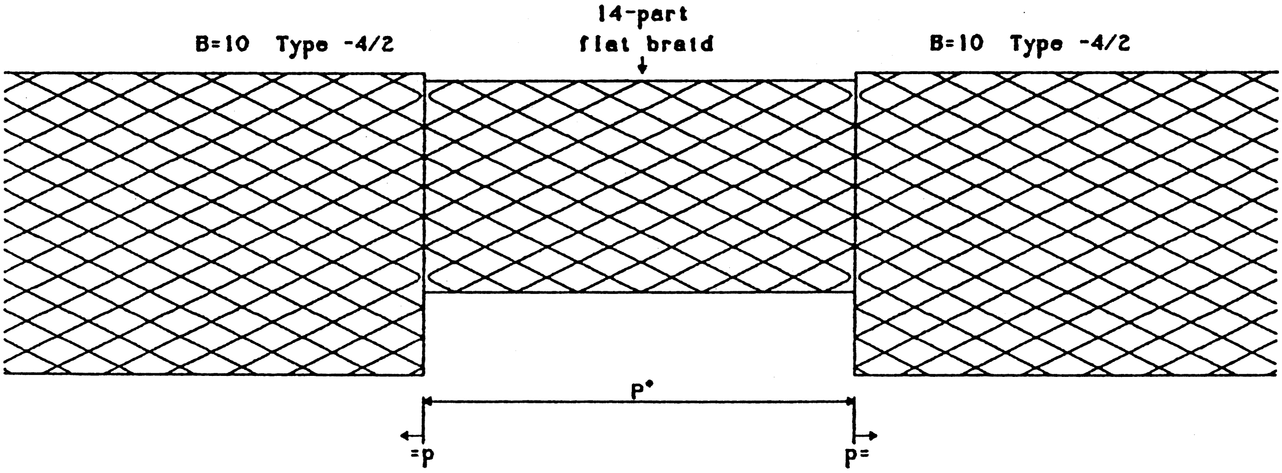
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



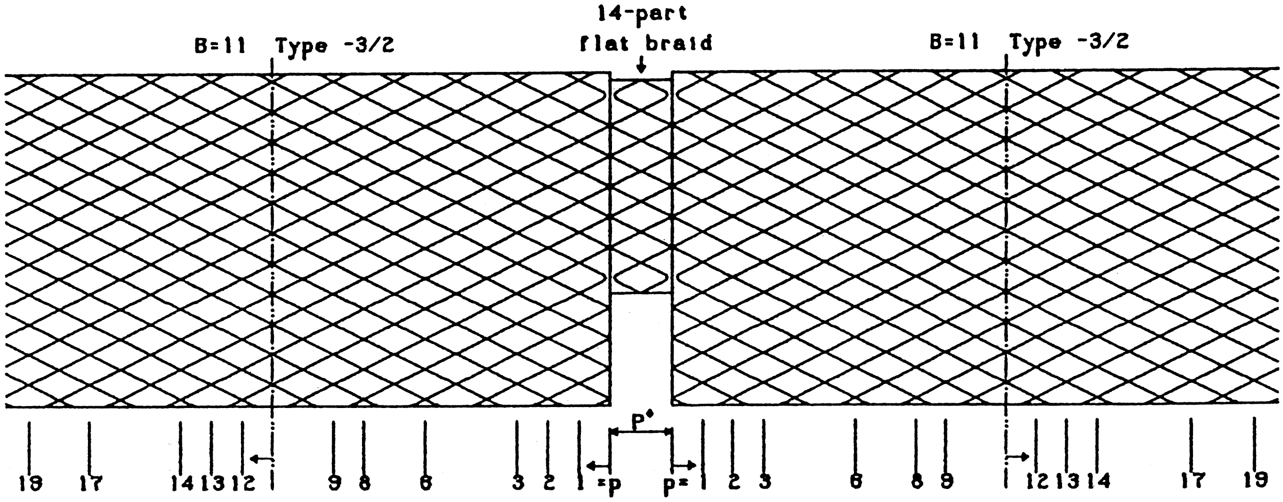
1-string solutions for $P^*=14n+10$ with n=0.1.2.3....



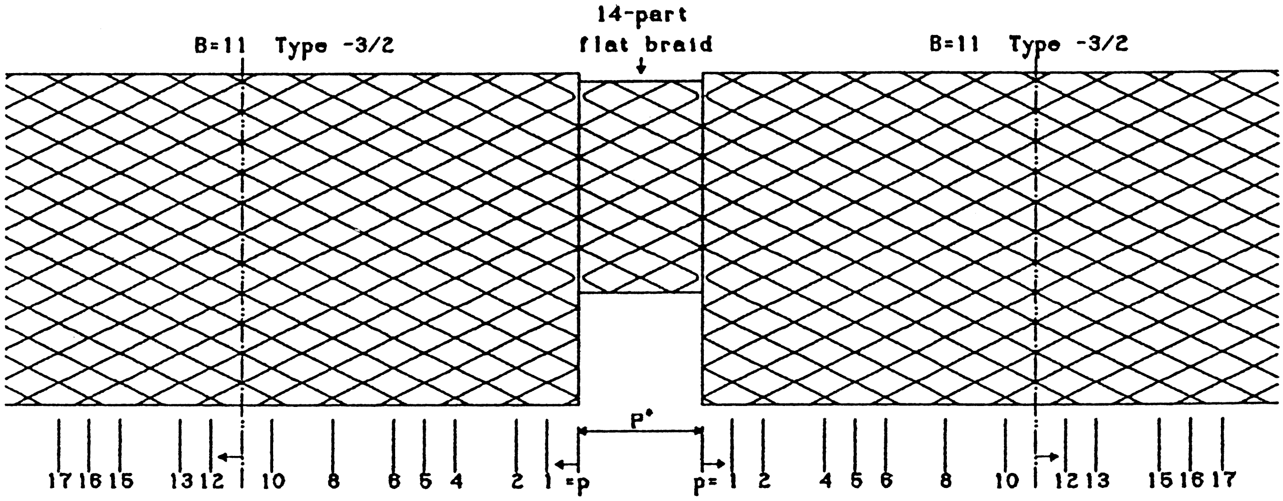
1-string solutions for $P^*=14n+12$ with n=0.1.2.3....



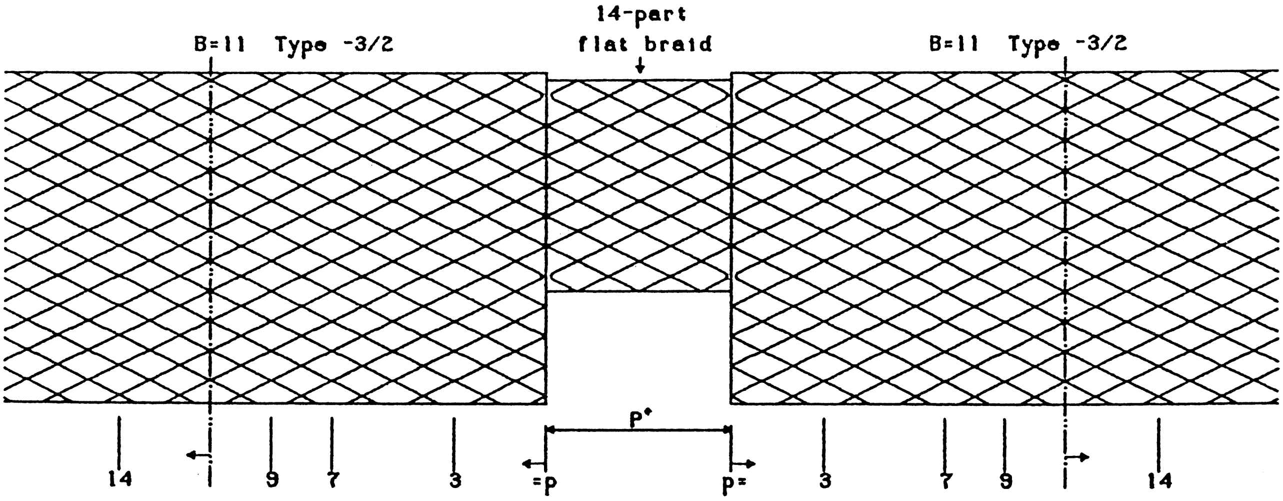
No 1-string solutions for $P^* = 14n + 14$ with $n = 0, 1, 2, 3, \ldots$



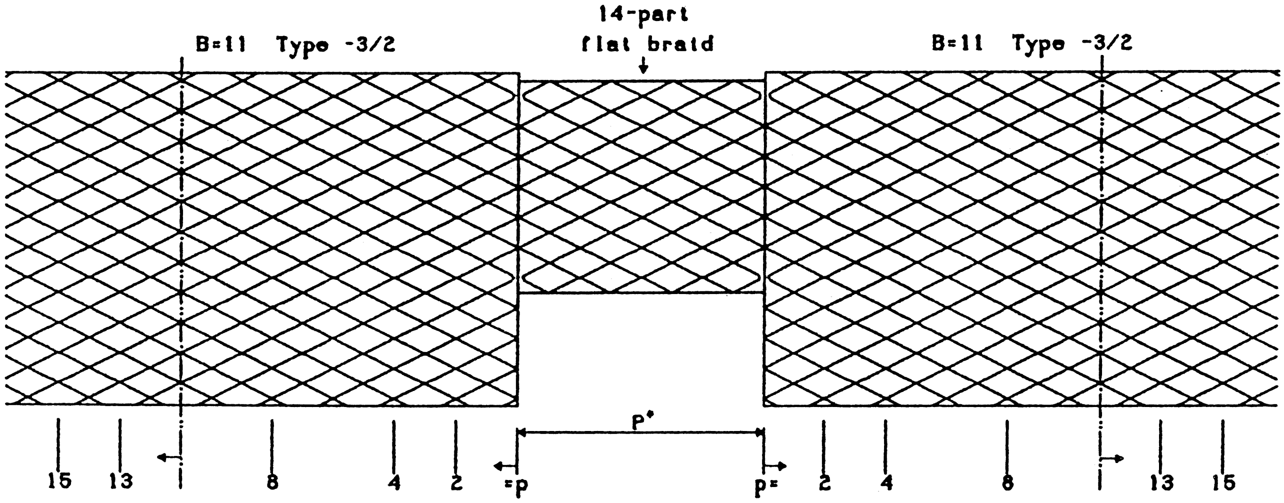
1-string solutions for P*=14n+2 with n=0,1,2,3....


14-part
flat braid
B=11 Type -3/2
B=11 Type -3/2
P*
17 16 15 13 12 10 8 6 5 4 2 1 =p
p= 1 2 4 5 6 8 10 12 13 15 16 17

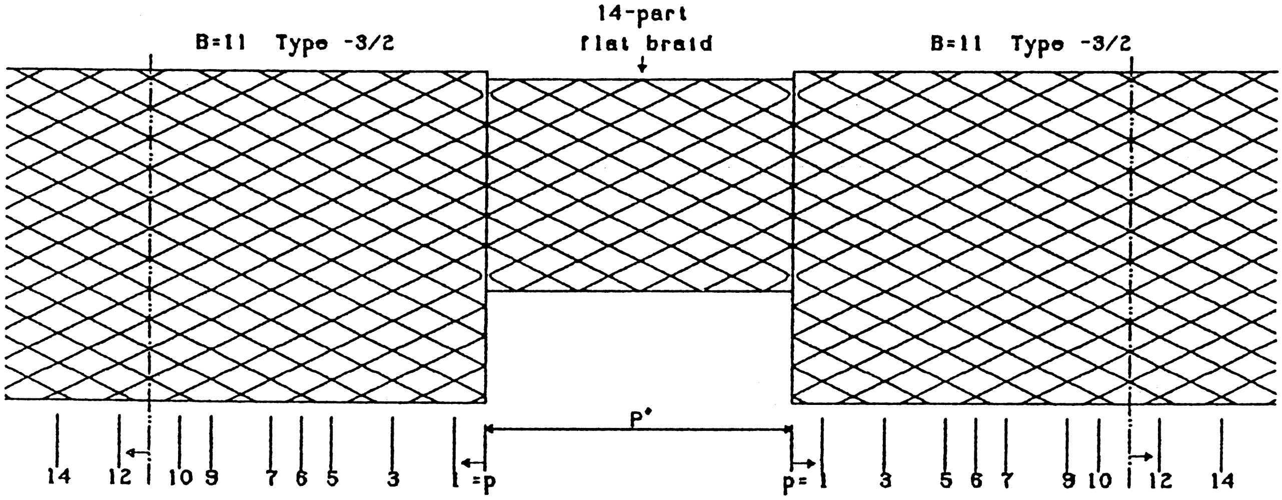
1-string solutions for P*=14n+4 with n=0,1,2,3....



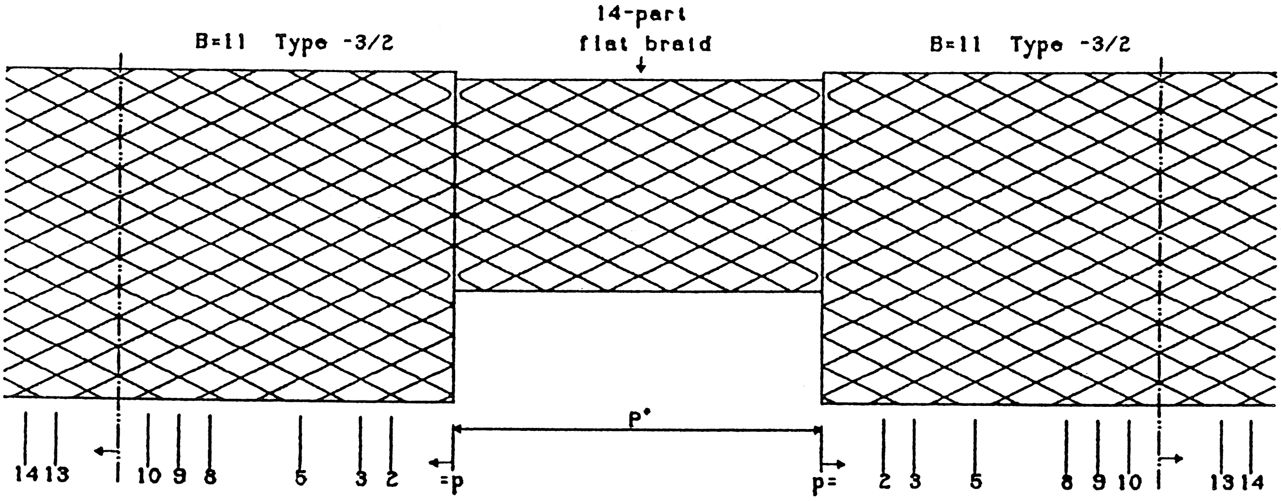
1-string solutions for P*=14n+6 with n=0,1,2,3....



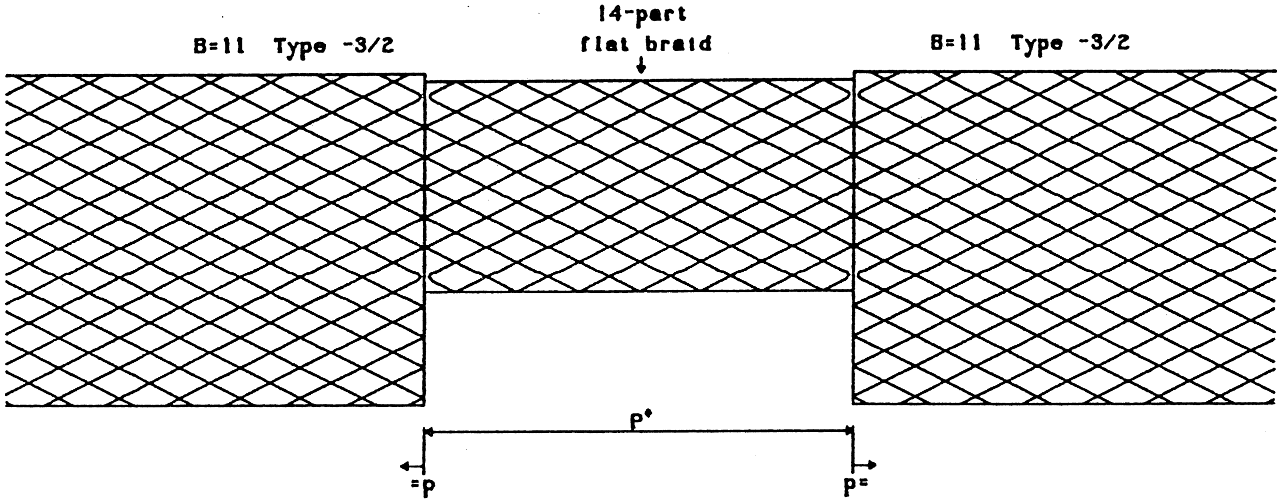
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



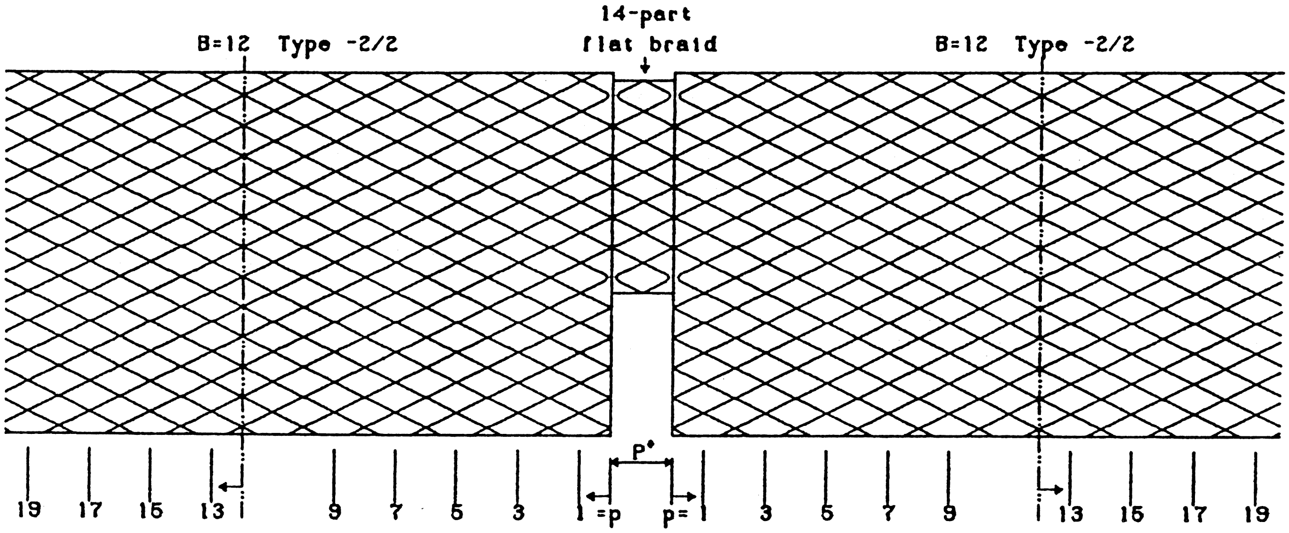
1-string solutions for $P^*=14n+10$ with n=0.1.2.3....



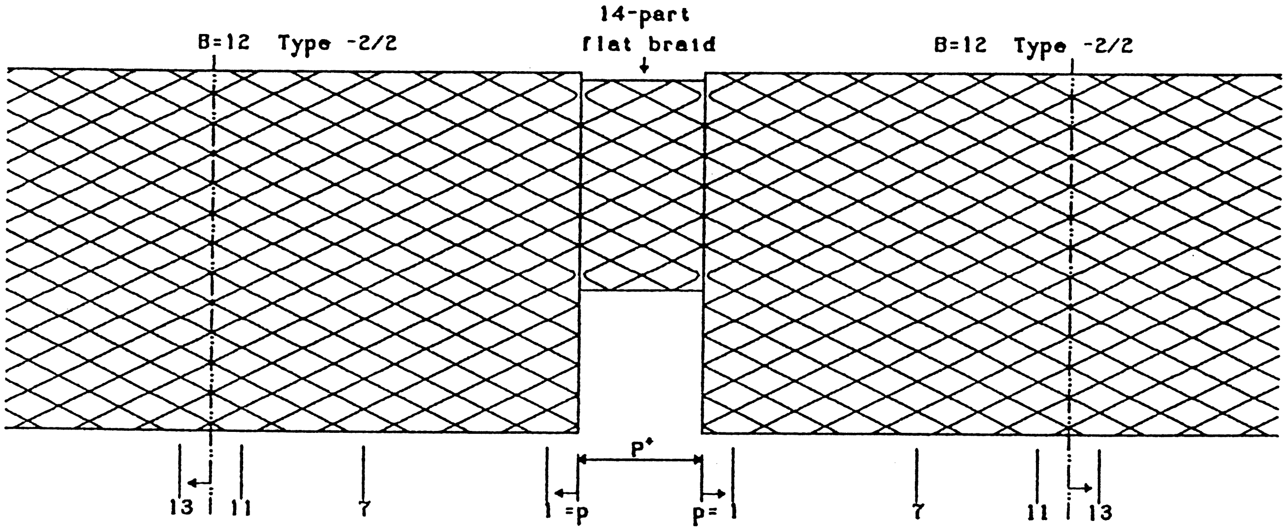
1-string solutions for $P^*=14n+12$ with n=0.1.2.3....



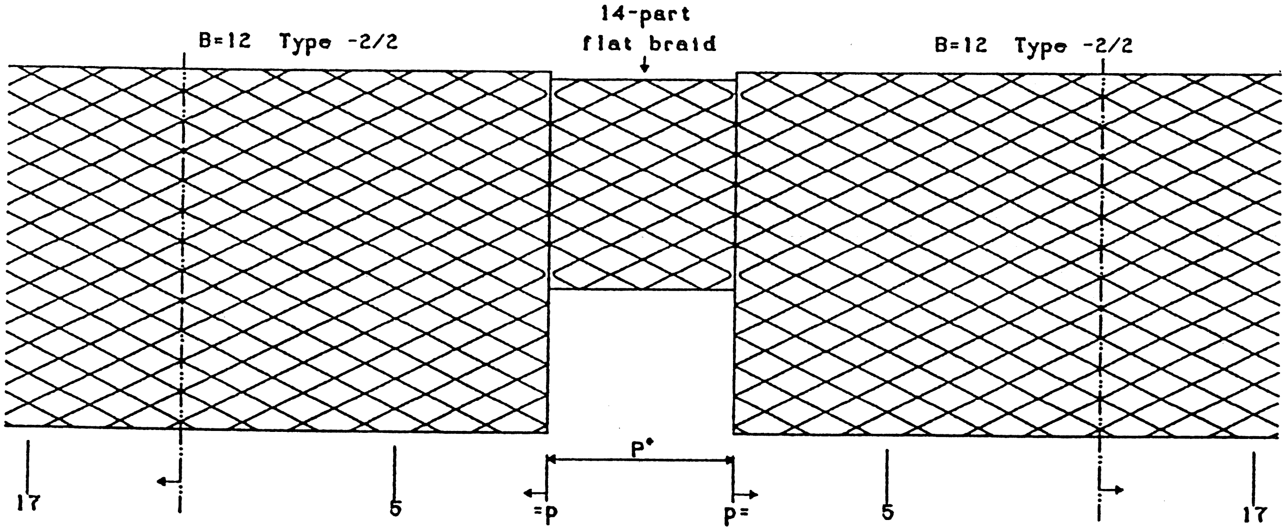
No 1-string solutions for $P^*=14n+14$ with $n=0,1,2,3\ldots.$



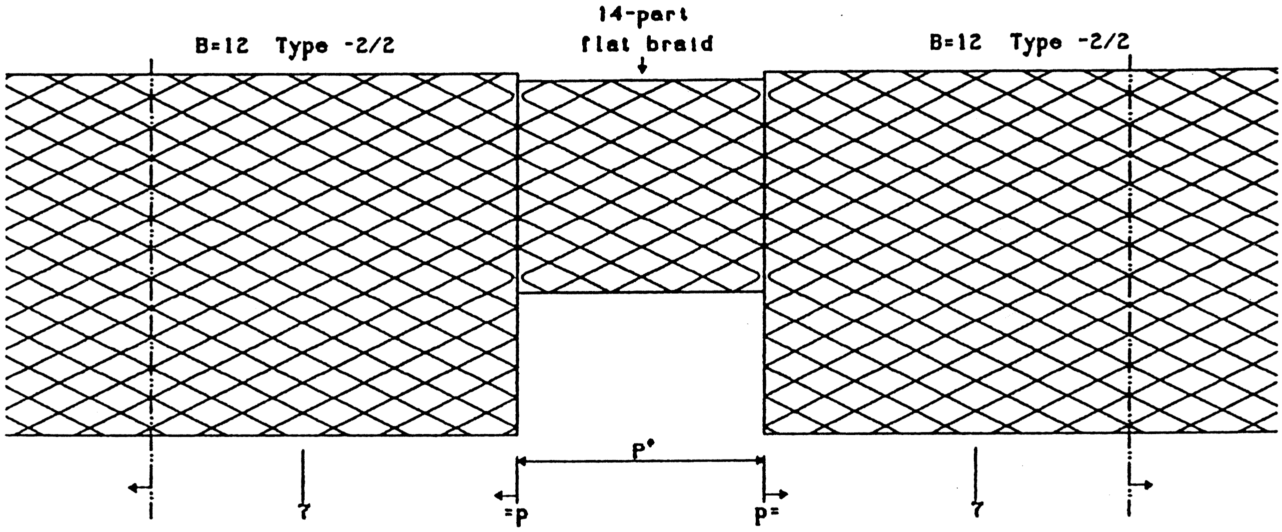
1-string solutions for $P^*=14n+2$ with n=0.1.2.3....



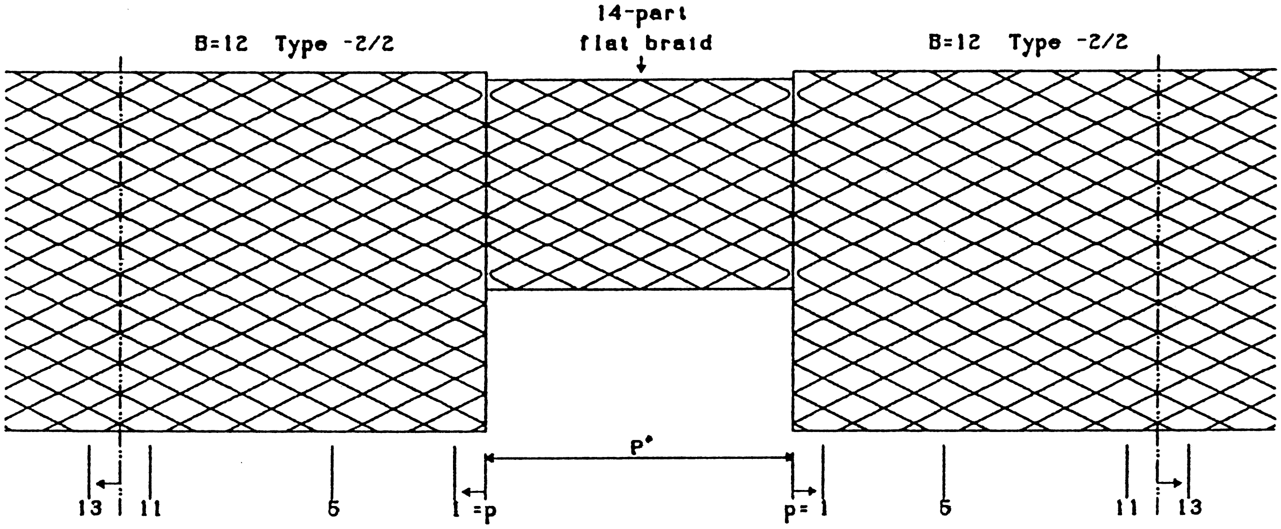
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



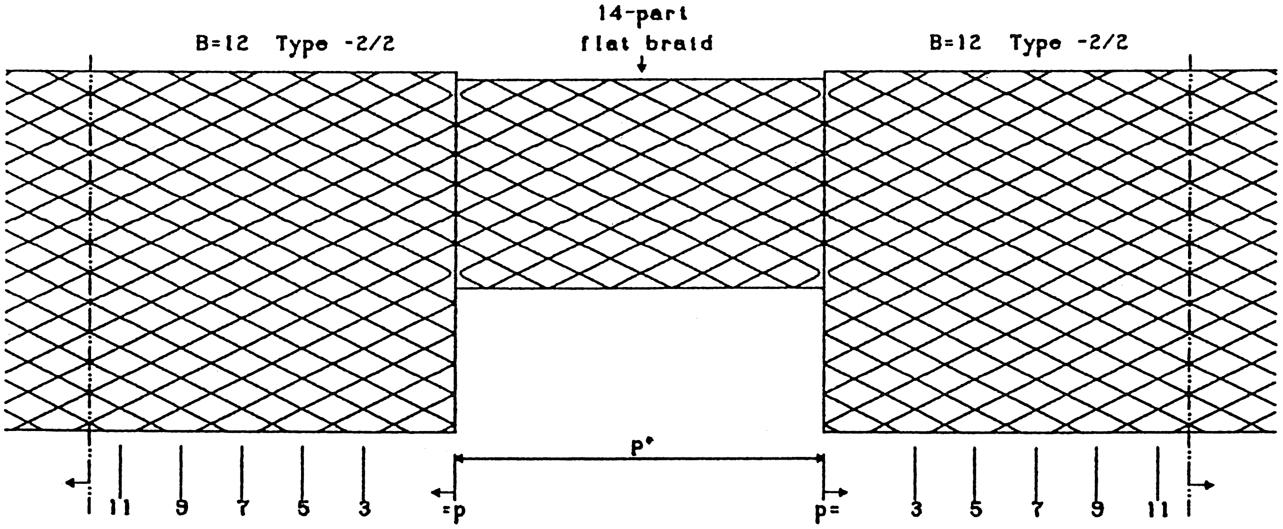
1-string solutions for $P^*=14n+6$ with n=0.1.2.3....



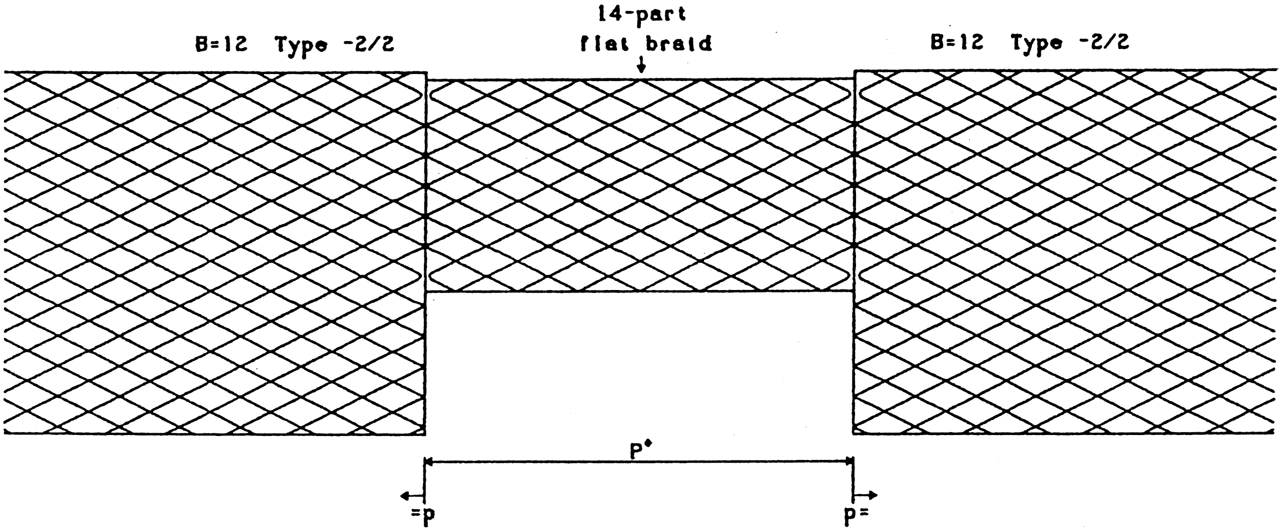
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



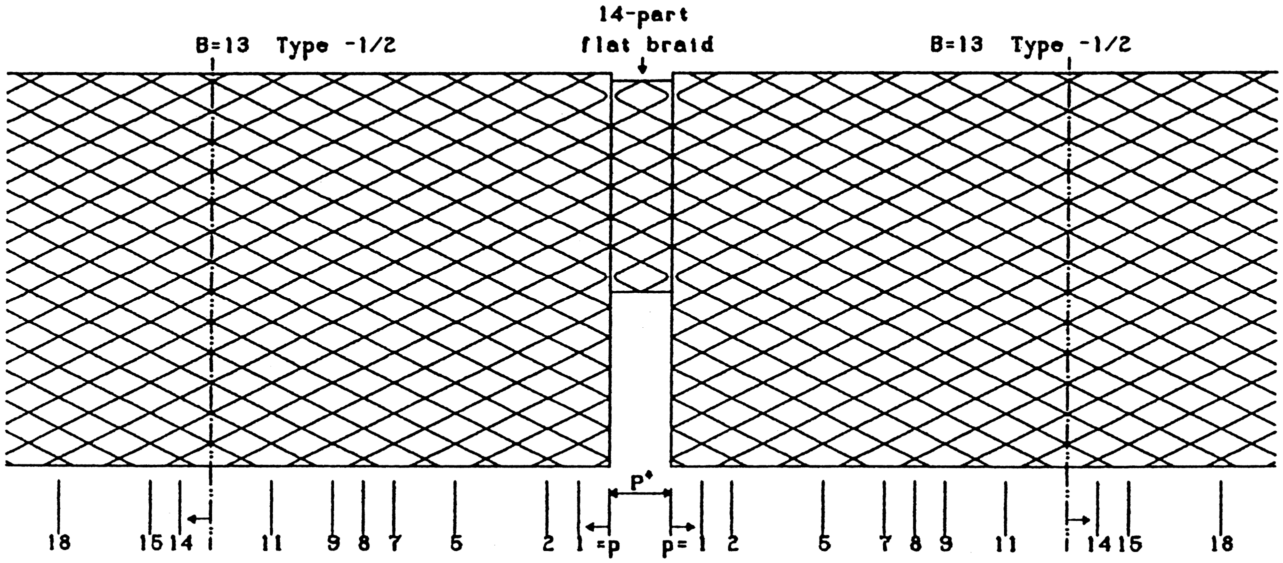
1-string solutions for $P^*=14n+10$ with n=0.1.2.3....



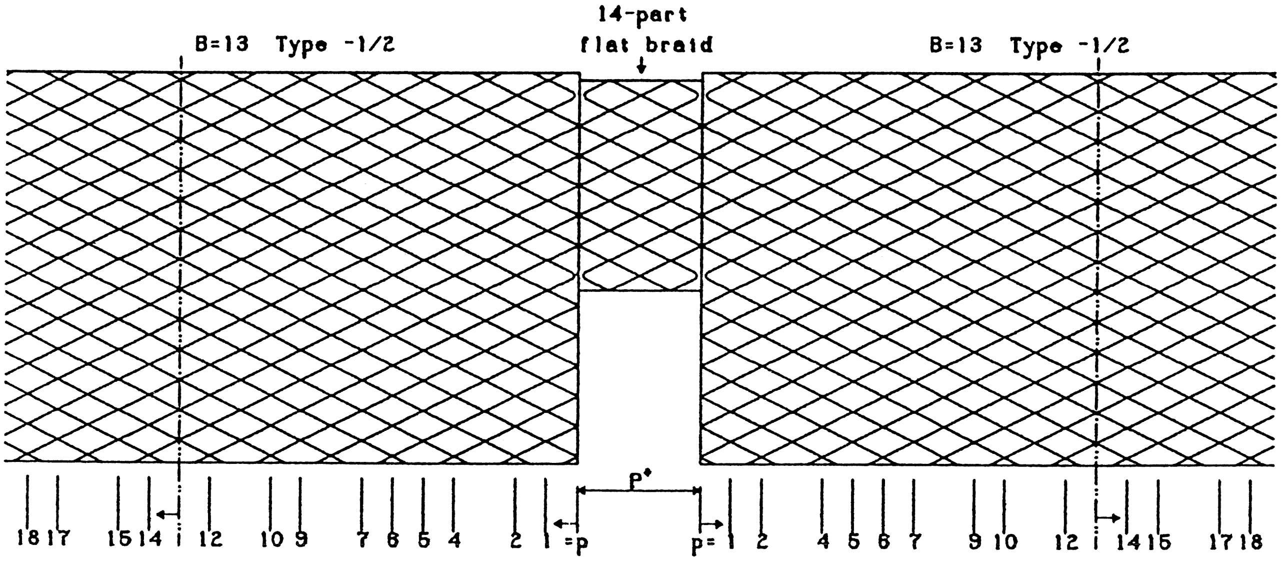
1-string solutions for $P^*=14n+12$ with n=0.1.2.3....



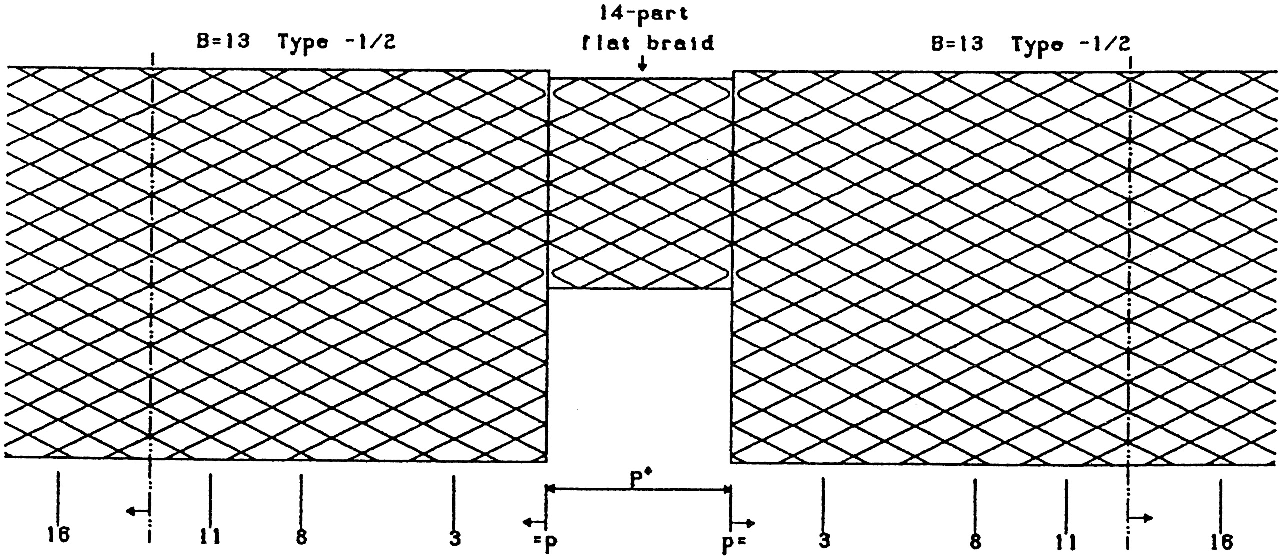
No 1-string solutions for P*=14n+14 with n=0.1.2.3....



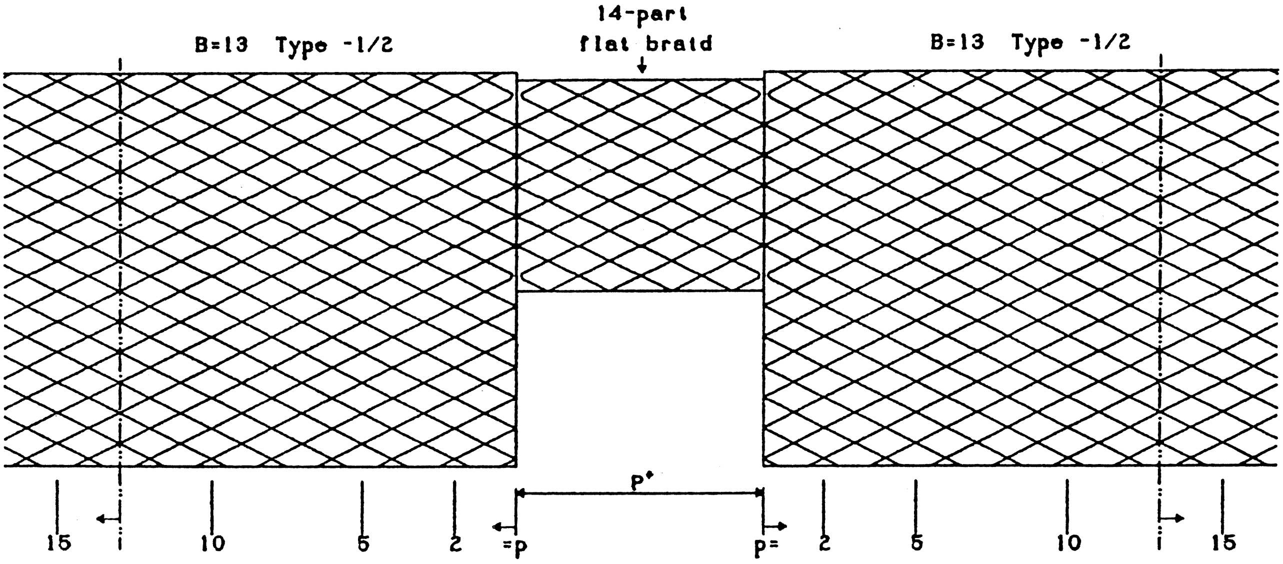
1-string solutions for $P^*=14n+2$ with n=0.1.2.3....


14-part
flat braid
B=13 Type -1/2
B=13 Type -1/2
P*
18 17 15 14 i 12 10 9 7 6 5 4 2 1 =p
p= 1 2 4 5 6 7 9 10 12 i 14 15 17 18

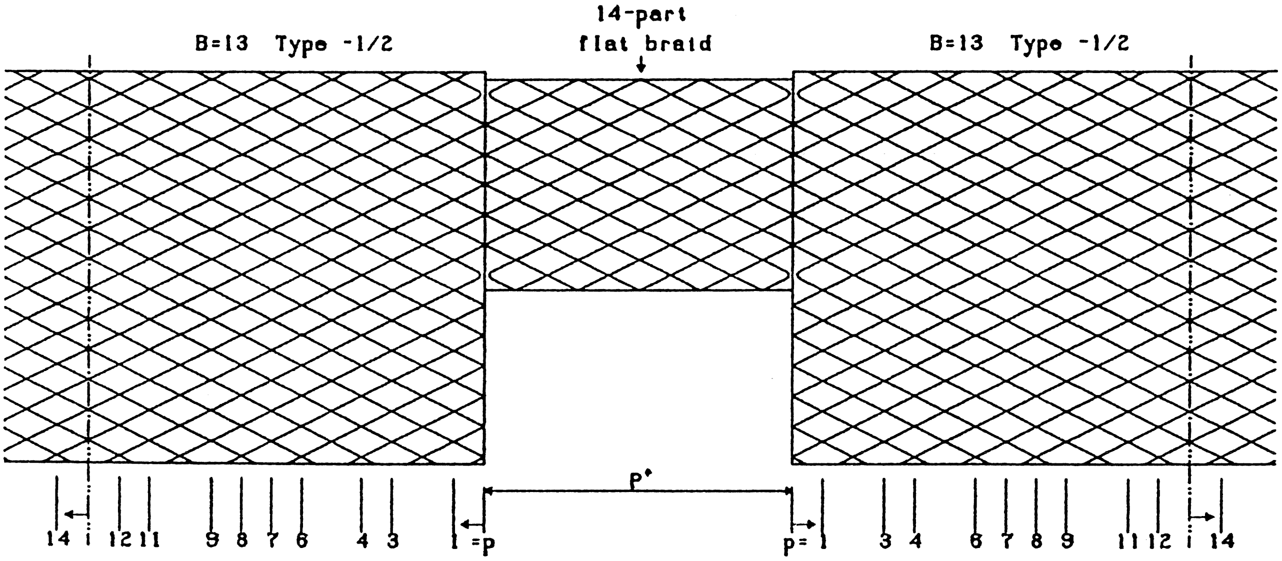
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



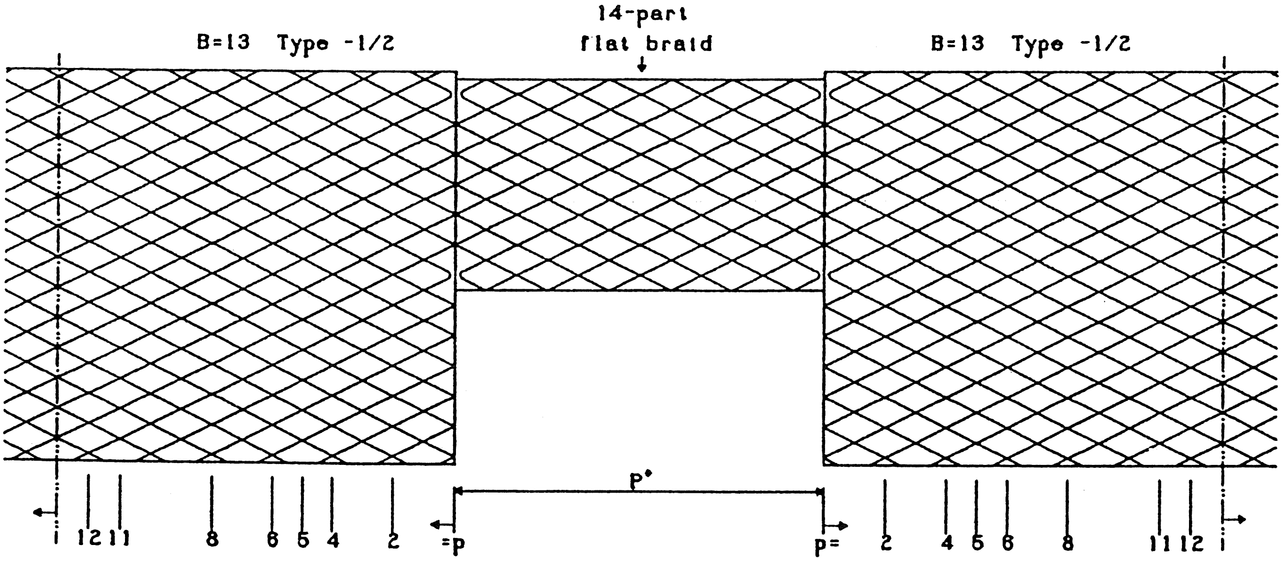
1-string solutions for $P^*=14n+6$ with n=0.1.2.3....



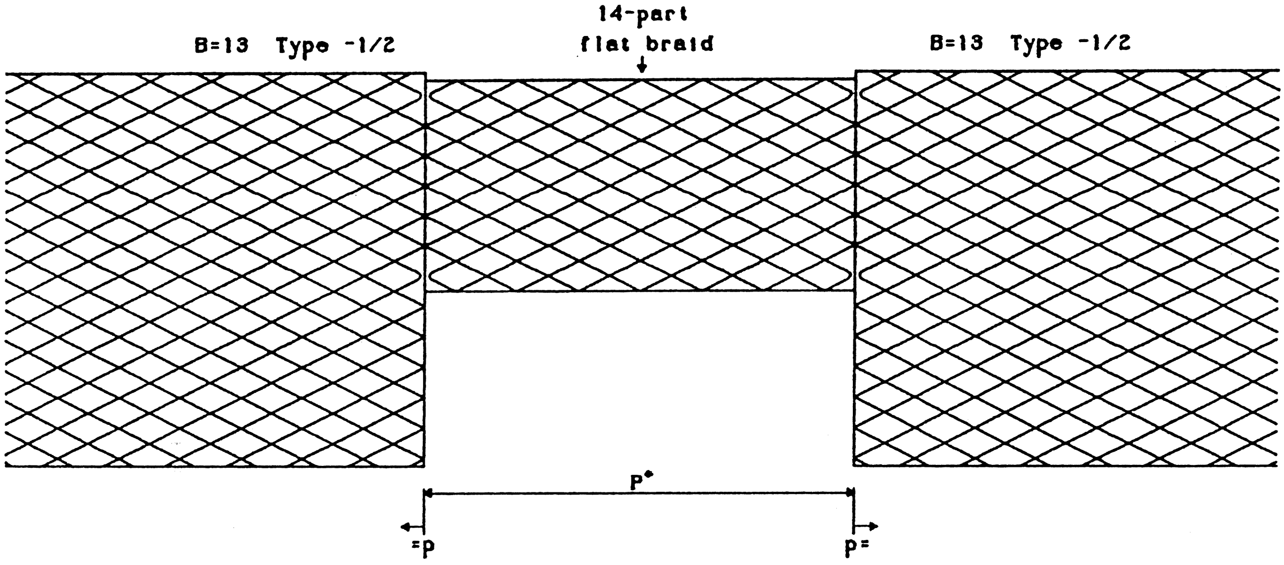
1-string solutions for $P^*=14n+8$ with n=0.1.2.3....



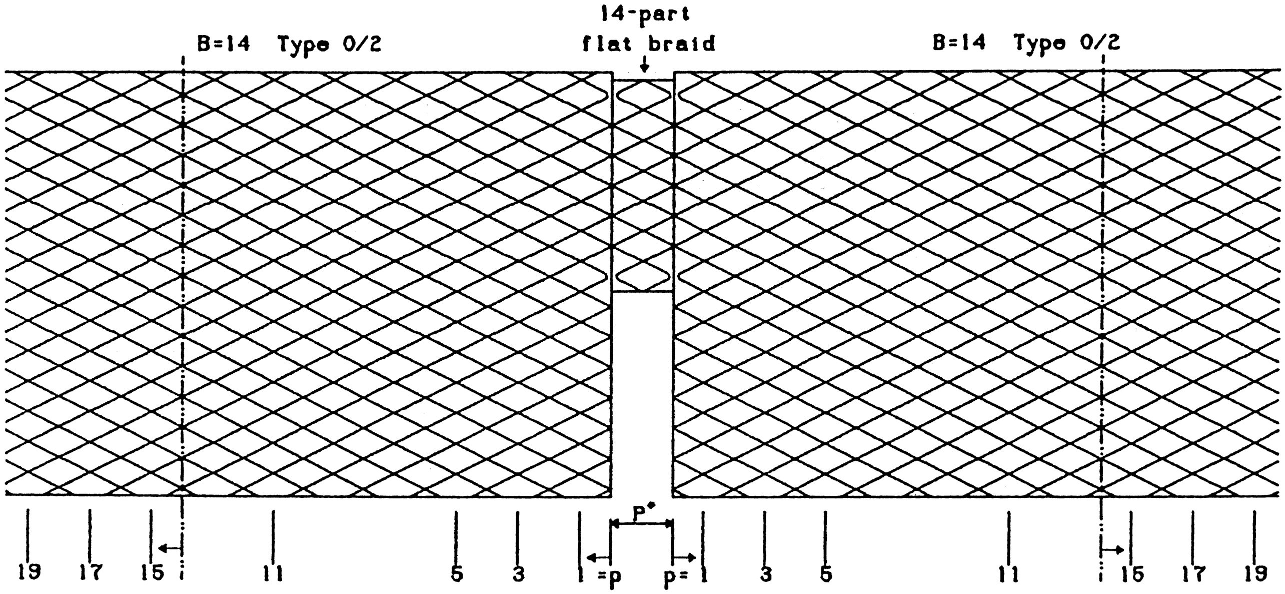
1-string solutions for $P^*=14n+10$ with n=0.1.2.3....



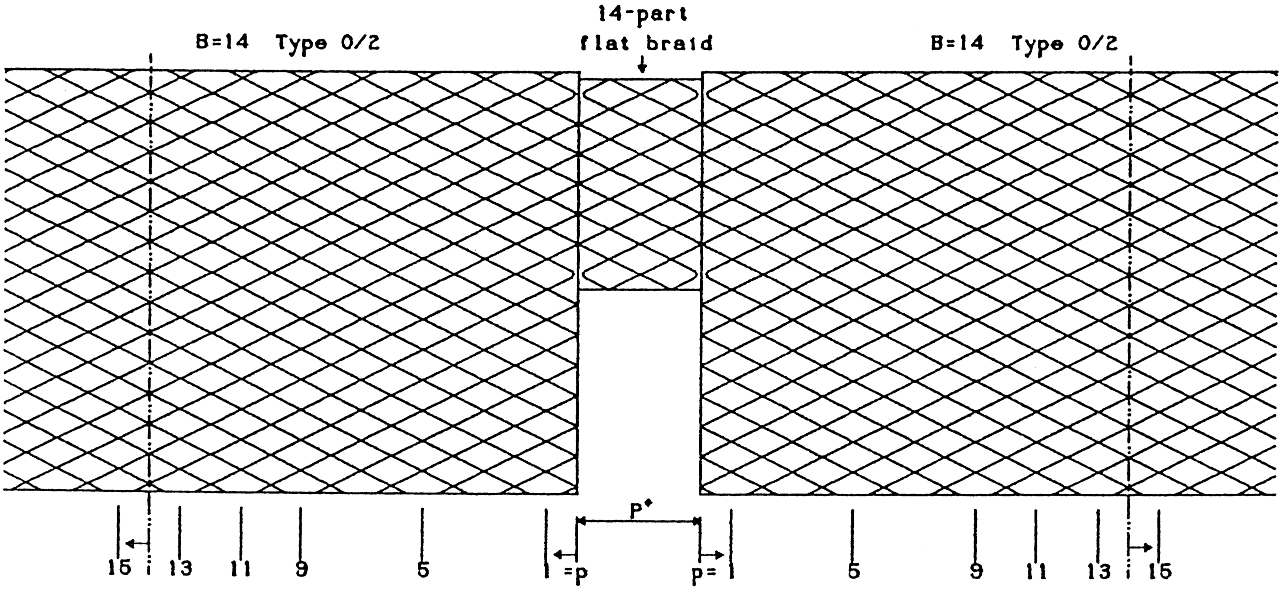
1-string solutions for $P^*=14n+12$ with n=0.1.2.3....



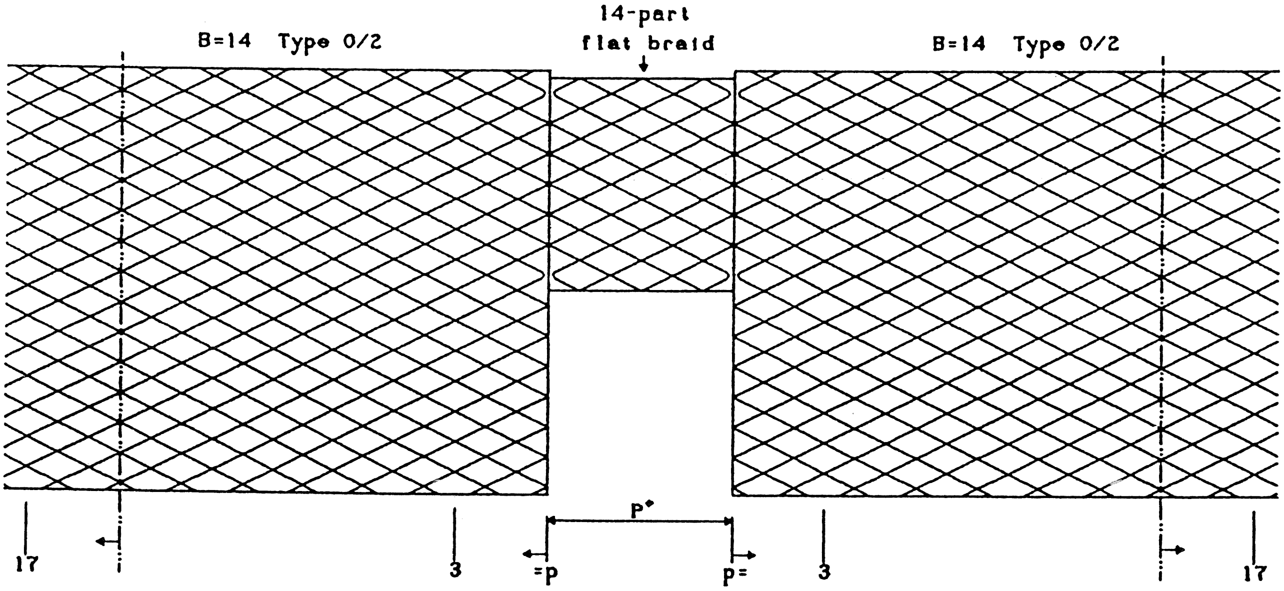
No 1-string solutions for $P^{*}=14n+14$ with $n=0,1,2,3,\ldots$



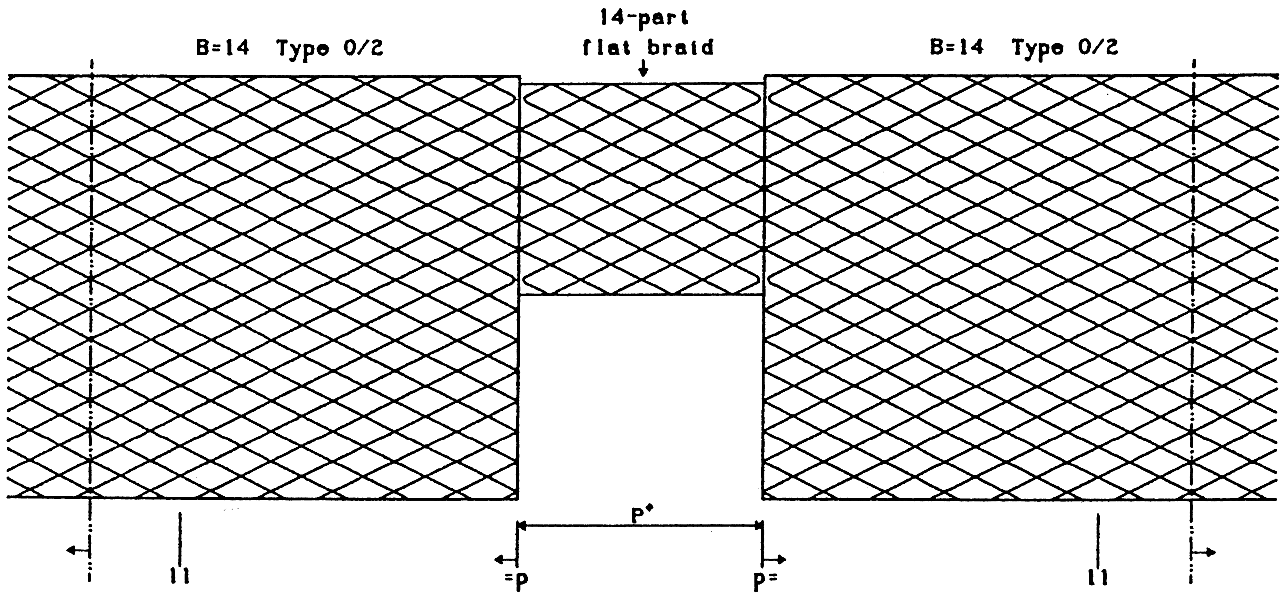
1-string solutions for $P^*=14n+2$ with n=0.1.2.3....



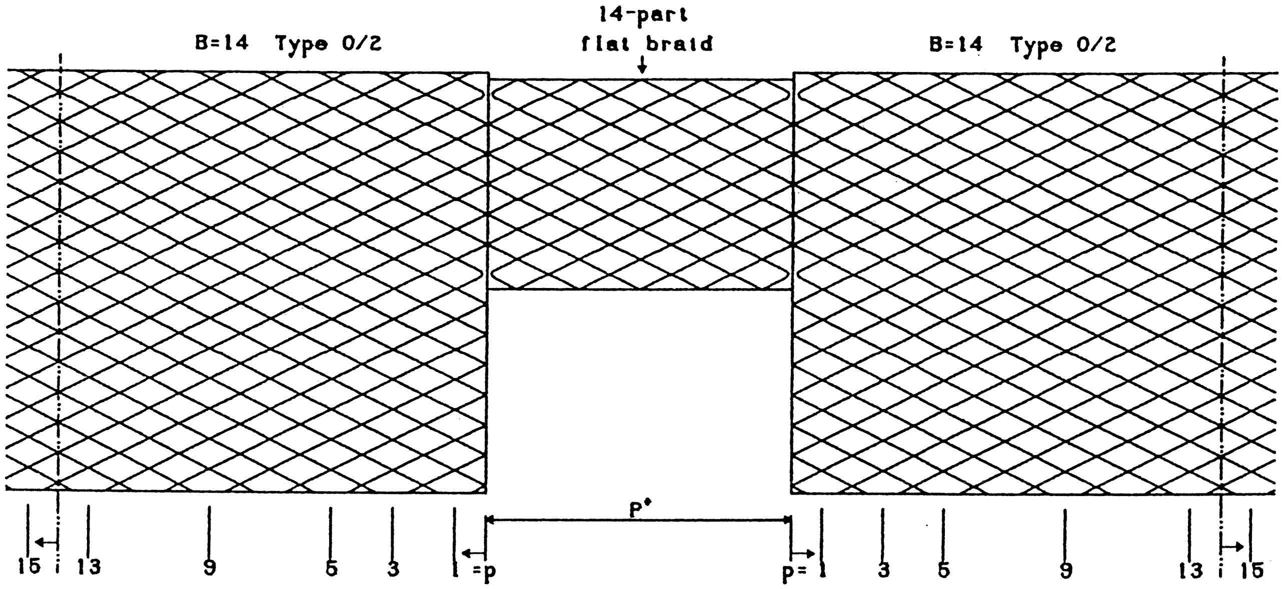
1-string solutions for $P^*=14n+4$ with n=0.1.2.3....



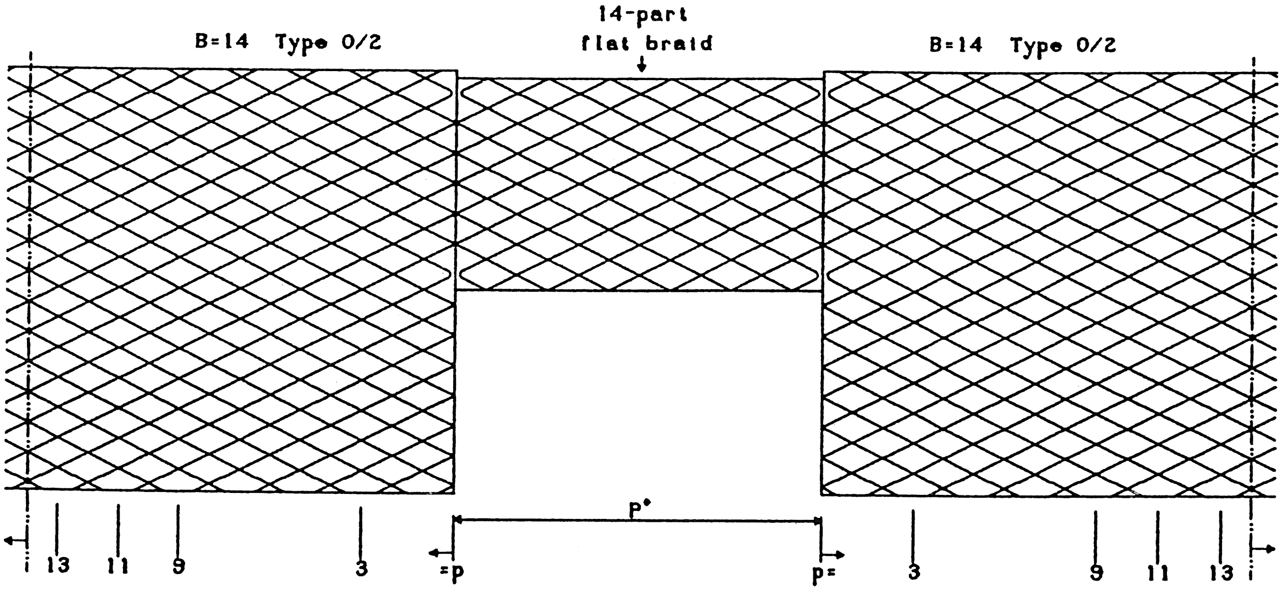
1-string solutions for $P^*=14n+6$ with n=0.1.2.3....



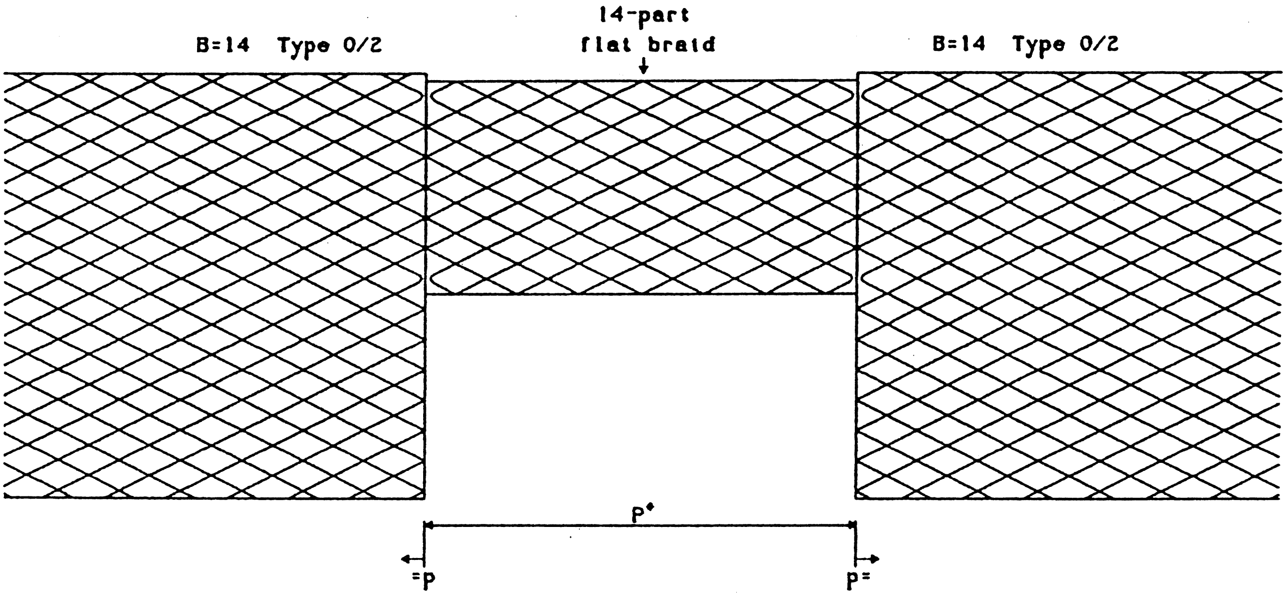
1-string solutions for $P^*=14n+8$ with $n=0.1.2.3....$



1-string solutions for $P^*=14n+10$ with $n=0.1.2.3....$



1-string solutions for $P^*=14n+12$ with $n=0.1.2.3....$



No 1-string solutions for $P^* = 14n + 14$ with n=0.1.2.3....

Tables for 1-string and 2-string Regular CWH* Braids

1-string Regular CWH* Braids with $\mathbf{b_V=1\,;\,b_h=1}$.

$B = 2$: $P = 4$ — 8 — 12 — 16 — ⋯
$B = 3$: No solutions.
$B = 4$: $P = 4$ — 12 — 20 — 28 — ⋯
$B = 5$: No solutions.
$B = 6$: $P = 4$, 8 — 16, 20 — 28, 32 — 40, 44 — ⋯
$B = 7$: No solutions.
$B = 8$: $P = 4$, 12 — 20, 28 — 36, 44 — 52, 60 — ⋯
$B = 9$: No solutions.
$B = 10$: $P = 4$, 8, 12, 16 — 24, 28, 32, 36 — 44, 48, 52, 56 — ⋯
$B = 11$: No solutions.
$B = 12$: $P = 4$, 20 — 28, 44 — 52, 68 — ⋯
$B = 13$: No solutions.
$B = 14$: $P = 4$, 8, 12, 16, 20, 24 — 32, 36, 40, 44, 48, 52 — ⋯
$B = 15$: No solutions.
$B = 16$: $P = 4$, 12, 20, 28 — 36, 44, 52, 60 — ⋯
$B = 17$: No solutions.
$B = 18$: $P = 4$, 8, 16, 20, 28, 32 — 40, 44, 52, 56, 64, 68 — ⋯
$B = 19$: No solutions.
$B = 20$: $P = 4$, 12, 28, 36 — 44, 52, 68, 76 — ⋯
$B = 21$: No solutions.
$B = 22$: $P = 4$, 8, 12, 16, 20, 24, 28, 32, 36, 40 — 48, 52, 56, 60, 64, 68, 72, ⋯
$B = 23$: No solutions.
$B = 24$: $P = 4$, 20, 28, 44 — 52, 68, 76, 92 — ⋯
$B = 25$: No solutions.

2-string Regular CWH* Braids with $\mathbf{b_v=1\,;\,b_h=1}$.

$B = 2$: No solutions.
$B = 3$: $P = 4\,,\ 6 — 10\,,\ 12 — 16\,,\ 18 — \cdots$
$B = 4$: No solutions.
$B = 5$: $P = 6\,,\ 8 — 16\,,\ 18 — \cdots$
$B = 6$: No solutions.
$B = 7$: $P = 4\,,\ 8\,,\ 12 — 18\,,\ 22\,,\ 26 — \cdots$
$B = 8$: No solutions.
$B = 9$: $P = 6\,,\ 10\,,\ 12\,,\ 14\,,\ 16 — 24\,,\ 28\,,\ 30\,,\ 32\,,\ 34 — \cdots$
$B = 10$: No solutions.
$B = 11$: $P = 4\,,\ 6\,,\ 12\,,\ 14\,,\ 20 — 26\,,\ 28\,,\ 34\,,\ 36\,,\ 42 — \cdots$
$B = 12$: No solutions.
$B = 13$: $P = 8\,,\ 10\,,\ 14\,,\ 20\,,\ 22\,,\ 24 — 34\,,\ 36\,,\ 40\,,\ 46\,,\ 48\,,\ 50 — \cdots$
$B = 14$: No solutions.
$B = 15$: $P = 4\,,\ 6\,,\ 8\,,\ 12\,,\ 16\,,\ 18\,,\ 24\,,\ 28 — 34\,,\ 36\,,\ 38\,,\ 42\,,\ 46\,,\ 48\,,\ 54\,,\ \cdots$
$B = 16$: No solutions.
$B = 17$: $P = 6\,,\ 18\,,\ 20\,,\ 22\,,\ 24\,,\ 26\,,\ 30\,,\ 32 — 40\,,\ 52\,,54\,,\ 56\,,\ 58\,,\ \cdots$
$B = 18$: No solutions.
$B = 19$: $P = 4, 10, 12, 16, 20, 24, 30, 32, 36 — 42, 48, 50, 54, 58, \cdots$
$B = 20$: No solutions.
$B = 21$: $P = 6, 8, 12, 16, 18, 22, 24, 30, 32, 36, 38, 40 — 48, 50, 54, 58, \cdots$
$B = 22$: No solutions.
$B = 23$: $P = 4, 6, 8, 10, 12, 14, 18, 24, 26, 30, 44 — 50, 52, 54, 56, 58, \cdots$
$B = 24$: No solutions.
$B = 25$: $P = 14, 16, 18, 22, 26, 38, 42, 44, 46, 48 — 64, 66, 68, 72, 76, 88, 92, \cdots$

1-string Regular CWH* Braids with $b_V=1$; $b_h=2$.

$B = 2$: $P = 6$ — 10 — 14 — $\cdots$
$B = 3$: No solutions.
$B = 4$: $P = 10$ — 18 — 26 — $\cdots$
$B = 5$: No solutions.
$B = 6$: $P = 6$, 14 — 18, 26 — $\cdots$
$B = 7$: No solutions.
$B = 8$: $P = 6$, 18 — 22, 34 — $\cdots$
$B = 9$: No solutions.
$B = 10$: $P = 14$, 22 — 34, 42 — $\cdots$
$B = 11$: No solutions.
$B = 12$: $P = 6$, 10, 18, 26 — 30, 34, 42, 50 — $\cdots$
$B = 13$: No solutions.
$B = 14$: $P = 6$, 10, 30 — 34, 38, 58 — $\cdots$
$B = 15$: No solutions.
$B = 16$: $P = 14$, 22, 26, 34 — 46, 54, 58, $\cdots$
$B = 17$: No solutions.
$B = 18$: $P = 6$, 22, 26, 30, 38 — 42, 58, 62, $\cdots$
$B = 19$: No solutions.
$B = 20$: $P = 6$, 14, 18, 42 — 46, 54, 58, $\cdots$
$B = 21$: No solutions.
$B = 22$: $P = 10$, 18, 30, 38, 46 — 54, 62, $\cdots$
$B = 23$: No solutions.
$B = 24$: $P = 6$, 10, 14, 18, 22, 30, 42, 50 — 54, 58, $\cdots$
$B = 25$: No solutions.

2-string Regular CWH* Braids with $b_v=1$; $b_h=2$.

$B = 2$: No solutions.
$B = 3$: $P = 6, 8 \text{ — } 12, 14 \text{ — } \cdots$
$B = 4$: No solutions.
$B = 5$: $P = 6, 12 \text{ — } 16, 22 \text{ — } \cdots$
$B = 6$: No solutions.
$B = 7$: $P = 8, 10, 16 \text{ — } 22, 24, 30 \text{ — } \cdots$
$B = 8$: No solutions.
$B = 9$: $P = 6, 10, 12, 14, 20 \text{ — } 24, 28, 30, 32, 38 \text{ — } \cdots$
$B = 10$: No solutions.
$B = 11$: $P = 6, 8, 12, 18, 24 \text{ — } 28, 30, 34, 40, 46 \text{ — } \cdots$
$B = 12$: No solutions.
$B = 13$: $P = 14, 16, 18, 20, 22, 28 \text{ — } 40, 42, 44, \cdots$
$B = 14$: No solutions.
$B = 15$: $P = 6, 8, 12, 16, 18, 24, 26, 32 \text{ — } 36, 38, \cdots$
$B = 16$: No solutions.
$B = 17$: $P = 6, 10, 12, 14, 18, 26, 30, 36 \text{ — } 40, 44, \cdots$
$B = 18$: No solutions.
$B = 19$: $P = 8, 10, 20, 22, 24, 26, 32, 34, 40 \text{ — } 46, 48, \cdots$
$B = 20$: No solutions.
$B = 21$: $P = 6, 12, 16, 18, 22, 24, 30, 32, 34, 36, 38, 44 \text{ — } 48, 54, \cdots$
$B = 22$: No solutions.
$B = 23$: $P = 6, 8, 12, 14, 16, 20, 24, 28, 36, 42, 48 \text{ — } 52, 54, \cdots$
$B = 24$: No solutions.
$B = 25$: $P = 26, 28, 32, 34, 36, 38, 42, 44, 46, 52 \text{ — } 76, 78, \cdots$

1-string Regular CWH* Braids with $\mathbf{b_V=1\,;b_h=3}$.

$B=2$: $P=8 — 12 — 16 — \cdots$
$B=3$: No solutions.
$B=4$: $P=8\,,\,12 — 16\,,\,20 — \cdots$
$B=5$: No solutions.
$B=6$: $P=8\,,\,16 — 20\,,\,28 — \cdots$
$B=7$: No solutions.
$B=8$: $P=8\,,\,12\,,\,20 — 24\,,\,28\,,\,36 — \cdots$
$B=9$: No solutions.
$B=10$: $P=8\,,\,12\,,\,16\,,\,24 — 28\,,\,32\,,\,36\,,\,44 — \cdots$
$B=11$: No solutions.
$B=12$: $P=8\,,\,16\,,\,20\,,\,28 — 32\,,\,40\,,\,44\,,\,52 — \cdots$
$B=13$: No solutions.
$B=14$: $P=8\,,\,12\,,\,16\,,\,20\,,\,24\,,\,32 — 36\,,\,40\,,\,44\,,\,48\,,\,52\,,\,60 — \cdots$
$B=15$: No solutions.
$B=16$: $P=8\,,\,12\,,\,20\,,\,24\,,\,28\,,\,36 — 40\,,\,44\,,\,52\,,\,56\,,\,60\,,\,68 — \cdots$
$B=17$: No solutions.
$B=18$: $P=8\,,\,16\,,\,20\,,\,28\,,\,32\,,\,40 — 44\,,\,52\,,\,56\,,\,64\,,\,68\,,\,76 — \cdots$
$B=19$: No solutions.
$B=20$: $P=8\,,\,12\,,\,16\,,\,24\,,\,28\,,\,32\,,\,36\,,\,44 — 48\,,\,52\,,\,\cdots$
$B=21$: No solutions.
$B=22$: $P=8\,,\,12\,,\,16\,,\,20\,,\,24\,,\,28\,,\,32\,,\,36\,,\,40\,,\,48 — 52\,,\,56\,,\,\cdots$
$B=23$: No solutions.
$B=24$: $P=8\,,\,20\,,\,28\,,\,40\,,\,44\,,\,52 — 56\,,\,68\,,\,76\,,\,\cdots$
$B=25$: No solutions.

2-string Regular CWH* Braids with $b_v=1\,;b_h=3$.

$B=2$: No solutions.
$B=3$: $P=8\,,\,10 — 14\,,\,16 — \cdots$
$B=4$: No solutions.
$B=5$: $P=10\,,\,12 — 20\,,\,22 — \cdots$
$B=6$: No solutions.
$B=7$: $P=8\,,\,10\,,\,16\,,\,18 — 22\,,\,24\,,\,30\,,\,32 — \cdots$
$B=8$: No solutions.
$B=9$: $P=10\,,\,12\,,\,20 — 28\,,\,30\,,\,38 — \cdots$
$B=10$: No solutions.
$B=11$: $P=8\,,\,12\,,\,18\,,\,24\,,\,26 — 30\,,\,34\,,\,40\,,\,46 — \cdots$
$B=12$: No solutions.
$B=13$: $P=10\,,\,14\,,\,16\,,\,18\,,\,20\,,\,28 — 36\,,\,40\,,\,42\,,\,44\,,\,46\,,\,54 — \cdots$
$B=14$: No solutions.
$B=15$: $P=8\,,\,10\,,\,16\,,\,18\,,\,20\,,\,24\,,\,26\,,\,32\,,\,34 — 38\,,\,40\,,\,46\,,\,48\,,\,50\,,\,\cdots$
$B=16$: No solutions.
$B=17$: $P=10\,,\,12\,,\,14\,,\,18\,,\,24\,,\,26\,,\,36 — 44\,,\,46\,,\,48\,,\,52\,,\,58\,,\,60\,,\,70 — \cdots$
$B=18$: No solutions.
$B=19$: $P=8\,,\,10\,,\,16\,,\,20\,,\,22\,,\,26\,,\,32\,,\,34\,,\,40\,,\,42 — 46\,,\,48\,,\,\cdots$
$B=20$: No solutions.
$B=21$: $P=12\,,\,22\,,\,24\,,\,32\,,\,34\,,\,36\,,\,44 — 54\,,\,64\,,\,\cdots$
$B=22$: No solutions.
$B=23$: $P=8\,,\,10\,,\,12\,,\,16\,,\,20\,,\,24\,,\,28\,,\,36\,,\,42\,,\,48\,,\,50 — 54\,,\,56\,,\,58\,,\,\cdots$
$B=24$: No solutions.
$B=25$: $P=10,18,20,22,26,28,30,32,34,36,38,40,42,44,52 — 60,68,70,\cdots$

1-string Regular CWH* Braids with $b_V=1$; $b_h=4$.

$B = 2$: $P = 10$ — 14 — 18 — $\cdots$
$B = 3$: No solutions.
$B = 4$: $P = 10$ — 18 — 26 — $\cdots$
$B = 5$: No solutions.
$B = 6$: $P = 14$, 18 — 26 , 30 — $\cdots$
$B = 7$: No solutions.
$B = 8$: $P = 10$, 18 , 22 — 26 , 34 , 38 — $\cdots$
$B = 9$: No solutions.
$B = 10$: $P = 10$, 22 — 30 , 42 — $\cdots$
$B = 11$: No solutions.
$B = 12$: $P = 10$, 14 , 18 , 26 , 30 — 34 , 38 , 42 , 50 , 54 — $\cdots$
$B = 13$: No solutions.
$B = 14$: $P = 10$, 22 , 30 , 34 — 38 , 50 , 58 , 62 — $\cdots$
$B = 15$: No solutions.
$B = 16$: $P = 14$, 18 , 22 , 34 — 46 , 50 , 54 , 66 — $\cdots$
$B = 17$: No solutions.
$B = 18$: $P = 10$, 26 , 30 , 38 , 42 — 46 , 62 , 66 , $\cdots$
$B = 19$: No solutions.
$B = 20$: $P = 10$, 14 , 18 , 22 , 30 , 34 , 42 , 46 — 50 , 54 , $\cdots$
$B = 21$: No solutions.
$B = 22$: $P = 10, 18, 30, 34, 46$ — $54, 62, \cdots$
$B = 23$: No solutions.
$B = 24$: $P = 10, 18, 22, 26, 30, 42, 50, 54$ — $58, 66, \cdots$
$B = 25$: No solutions.

2-string Regular CWH* Braids with b_v=1 ; b_h=4 .

$B = 2$: No solutions.
$B = 3$: $P = 10$, 12 — 16, 18 — 22, 24 — ⋯
$B = 4$: No solutions.
$B = 5$: $P = 10$, 12, 14, 16 — 20, 22, 24, 26 — ⋯
$B = 6$: No solutions.
$B = 7$: $P = 10$, 16, 18 — 24, 30, 32 — ⋯
$B = 8$: No solutions.
$B = 9$: $P = 10$, 12, 14, 20, 22, 24 — 28, 30, 32, ⋯
$B = 10$: No solutions.
$B = 11$: $P = 12$, 16, 18, 24, 26, 28 — 34, 38, 40, ⋯
$B = 12$: No solutions.
$B = 13$: $P = 10$, 14, 16, 18, 22, 28, 30 — 36, 40, ⋯
$B = 14$: No solutions.
$B = 15$: $P = 10$, 12, 16, 18, 20, 24, 26, 32, 34, 36 — 40, 42, ⋯
$B = 16$: No solutions.
$B = 17$: $P = 10$, 12, 18, 24, 26, 28, 30, 36, 38, 40 — 44, 46, ⋯
$B = 18$: No solutions.
$B = 19$: $P = 10$, 14, 16, 20, 22, 24, 26, 34, 40, 42 — 48, 52, ⋯
$B = 20$: No solutions.
$B = 21$: $P = 12$, 16, 18, 22, 24, 26, 30, 32, 34, 36, 38, 44, 46, 48 — 54, 58, ⋯
$B = 22$: No solutions.
$B = 23$: $P = 10$, 12, 14, 16, 24, 28, 32, 36, 40, 42, 48, 50, 52 — 56, 58, ⋯
$B = 24$: No solutions.
$B = 25$: $P = 10$, 18, 20, 22, 26, 28, 30, 32, 34, 38, 40, 42, 46, 52, 54 — 60, 68, ⋯

1-string Regular CWH* Braids
with $b_V=2\,;\,b_h=1$.

$B = 3:$ $P = 4, 6 — 10, 12 — 16, 18 — \cdots$
$B = 4:$ $P = 6 — 14 — 22 — \cdots$
$B = 5:$ $P = 4, 8 — 14, 18 — 24, 28 — \cdots$
$B = 6:$ $P = 6, 10 — 18, 22 — 30, 34 — \cdots$
$B = 7:$ $P = 4, 6, 12 — 18, 20, 26 — \cdots$
$B = 8:$ $P = 10, 14 — 26, 30 — 42, 46 — \cdots$
$B = 9:$ $P = 4, 6, 8, 12, 16 — 22, 24, 26, 30, 34 — \cdots$
$B = 10:$ $P = 6, 18 — 26, 38 — 46, 58 — \cdots$
$B = 11:$ $P = 4, 10, 14, 16, 20 — 26, 32, 36, 38, 42 — \cdots$
$B = 12:$ $P = 6, 14, 18, 22 — 30, 38, 42, 46 — \cdots$
$B = 13:$ $P = 4, 6, 8, 10, 12, 24 — 30, 32, 34, \cdots$
$B = 14:$ $P = 18, 22, 26 — 46, 50, 54 — \cdots$
$B = 15:$ $P = 4, 6, 12, 14, 18, 22, 24, 28 — 34, 36, \cdots$
$B = 16:$ $P = 6, 10, 18, 30 — 38, 42, 50, \cdots$
$B = 17:$ $P = 4, 8, 16, 20, 22, 24, 28, 32 — 38, 42, \cdots$
$B = 18:$ $P = 6, 10, 14, 30, 34 — 42, 46, 50, \cdots$
$B = 19:$ $P = 4, 6, 12, 14, 16, 18, 28, 30, 36 — 42, 44, \cdots$
$B = 20:$ $P = 22, 26, 34, 38 — 62, 66, 74, \cdots$
$B = 21:$ $P = 4, 6, 8, 10, 12, 18, 20, 24, 26, 30, 36, 40 — 46, 48, \cdots$
$B = 22:$ $P = 6, 14, 26, 34, 42 — 50, 58, \cdots$
$B = 23:$ $P = 4, 10, 18, 22, 26, 30, 32, 34, 38, 40, 44 — 50, 56, \cdots$
$B = 24:$ $P = 6, 18, 26, 30, 34, 38, 42, 46 — 54, 66, \cdots$
$B = 25:$ $P = 4, 6, 8, 12, 14, 16, 18, 22, 24, 48 — 54, 56, \cdots$

2-string Regular CWH* Braids with $b_v=2$; $b_h=1$.

$B = 3$: No solutions.
$B = 4$: $P = 4$, 8 — 12, 16 — 20, 24 — ⋯
$B = 5$: No solutions.
$B = 6$: $P = 8$ — 20 — 32 — 44 — ⋯
$B = 7$: No solutions.
$B = 8$: $P = 4$, 12 — 20, 28 — 36, 44 — ⋯
$B = 9$: No solutions.
$B = 10$: $P = 12$, 16 — 32, 36 — 52, 56 — ⋯
$B = 11$: No solutions.
$B = 12$: $P = 4$, 8, 16, 20 — 28, 32, 40, 44 — ⋯
$B = 13$: No solutions.
$B = 14$: $P = 8$, 16, 24 — 36, 44, 52 — ⋯
$B = 15$: No solutions.
$B = 16$: $P = 4$, 12, 20, 28 — 36, 44, 52, ⋯
$B = 17$: No solutions.
$B = 18$: $P = 20$, 28, 32 — 56, 64, 68 — 92, 100, ⋯
$B = 19$: No solutions.
$B = 20$: $P = 4$, 8, 12, 16, 24, 28, 32, 36 — 44, 48, ⋯
$B = 21$: No solutions.
$B = 22$: $P = 8$, 12, 24, 28, 40 — 52, 56, ⋯
$B = 23$: No solutions.
$B = 24$: $P = 4$, 20, 28, 44 — 52, 68, 76, ⋯
$B = 25$: No solutions.

1-string Regular CWH* Braids with $b_v=2$; $b_h=2$.

$B = 3$: $P = 6$, 8 — 12, 14 — 18, 20 — ⋯
$B = 4$: No solutions.
$B = 5$: $P = 8$, 12 — 18, 22 — 28, 32 — ⋯
$B = 6$: No solutions.
$B = 7$: $P = 6$, 8, 12, 16 — 20, 22, 26, 30 — ⋯
$B = 8$: No solutions.
$B = 9$: $P = 6$, 8, 10, 12, 16, 20 — 24, 26, 28, 30, 34, 38 — ⋯
$B = 10$: No solutions.
$B = 11$: $P = 8$, 10, 12, 14, 20, 24 — 30, 32, 34, 36, 42, 46 — ⋯
$B = 12$: No solutions.
$B = 13$: $P = 6$, 8, 12, 14, 18, 20, 24, 28 — 32, 34, ⋯
$B = 14$: No solutions.
$B = 15$: $P = 6$, 8, 12, 14, 16, 18, 22, 24, 28, 32 — 36, 38, ⋯
$B = 16$: No solutions.
$B = 17$: $P = 8$, 12, 14, 16, 18, 20, 22, 26, 32, 36 — 42, 46, ⋯
$B = 18$: No solutions.
$B = 19$: $P = 6$, 8, 10, 12, 18, 20, 26, 28, 30, 32, 36, 40 — 44, 46, ⋯
$B = 20$: No solutions.
$B = 21$: $P = 6,8,10,12,18,20,22,24,30,32,34,36,40,44$ — 48, 50, ⋯
$B = 22$: No solutions.
$B = 23$: $P = 8,12,16,18,20,22,24,26,28,30,34,38,44,48$ — 54, 58, ⋯
$B = 24$: No solutions.
$B = 25$: $P = 6,8,12,14,16,24,26,34,36,38,42,44,48,52$ — 56, 58, ⋯

2-string Regular CWH* Braids with $b_V=2\,;b_h=2$.

$B=3$: No solutions.
$B=4$: $P=6\,,8\,,10 \text{ — } 14\,,16\,,18 \text{ — } 22\,,24\,,26 \text{ — } \cdots$
$B=5$: No solutions.
$B=6$: $P=6\,,10\,,14 \text{ — } 18\,,22\,,26 \text{ — } 30\,,34\,,38 \text{ — } \cdots$
$B=7$: No solutions.
$B=8$: $P=8\,,14\,,18 \text{ — } 24\,,30\,,34 \text{ — } \cdots$
$B=9$: No solutions.
$B=10$: $P=6\,,14\,,18\,,22 \text{ — } 26\,,34\,,38\,,42 \text{ — } \cdots$
$B=11$: No solutions.
$B=12$: $P=6\,,8\,,16\,,18\,,22\,,26 \text{ — } 30\,,32\,,40\,,42\,,46\,,50 \text{ — } \cdots$
$B=13$: No solutions.
$B=14$: $P=10\,,18\,,26\,,30 \text{ — } 38\,,46\,,54\,,58 \text{ — } \cdots$
$B=15$: No solutions.
$B=16$: $P=6\,,8\,,10\,,22\,,24\,,26\,,30\,,34 \text{ — } 38\,,40\,,\cdots$
$B=17$: No solutions.
$B=18$: $P=6\,,14\,,22\,,30\,,34\,,38 \text{ — } 42\,,50\,,\cdots$
$B=19$: No solutions.
$B=20$: $P=8\,,14\,,16\,,24\,,26\,,32\,,38\,,42 \text{ — } 48\,,54\,,\cdots$
$B=21$: No solutions.
$B=22$: $P=6,14,18,26,30,38,42,46 \text{ — } 50,58,\cdots$
$B=23$: No solutions.
$B=24$: $P=6,8,10,14,18,30,34,38,40,42,46 \text{ — } 54,56,\cdots$
$B=25$: No solutions.

1-string Regular CWH* Braids with $b_v=2\,;\,b_h=3$.

$B = 3$: $P = 8$, 10 — 24, 16 — 20, 22 — ⋯
$B = 4$: $P = 10$ — 18 — 26 — 34 — ⋯
$B = 5$: $P = 8$, 10, 12, 14 — 18, 20, 22, 24 — ⋯
$B = 6$: $P = 10$, 14 — 22, 26 — ⋯
$B = 7$: $P = 8$, 12, 16, 18 — 22, 26, 30, 32 — ⋯
$B = 8$: $P = 10$, 14, 18 — 26, 30, 34 — ⋯
$B = 9$: $P = 8$, 10, 16, 20, 22 — 26, 28, 34, 38, 40 — ⋯
$B = 10$: $P = 10$, 14, 18, 22 — 30, 34, 38, 42 — ⋯
$B = 11$: $P = 8$, 10, 12, 16, 20, 24, 26 — 30, 32, 34, ⋯
$B = 12$: $P = 14$, 22, 26 — 38, 46, 50 — ⋯
$B = 13$: $P = 8$, 10, 12, 14, 18, 20, 24, 28, 30 — 34, 36, 38, ⋯
$B = 14$: $P = 10$, 18, 22, 26, 30 — 38, 46, 50, ⋯
$B = 15$: $P = 8$, 10, 14, 16, 20, 28, 32, 34 — 38, 40, 44, ⋯
$B = 16$: $P = 10$, 18, 22, 26, 30, 34 — 42, 50, 54, ⋯
$B = 17$: $P = 8$, 12, 14, 16, 18, 22, 24, 26, 28, 32, 36, 38 — 42, 46, ⋯
$B = 18$: $P = 10$, 22, 34, 38 — 46, 58, 70, 74 — ⋯
$B = 19$: $P = 8$, 10, 12, 14, 16, 18, 20, 26, 28, 32, 36, 40, 42 — 46, 48, ⋯
$B = 20$: $P = 10$, 14, 22, 26, 30, 34, 38, 42 — 50, 54, ⋯
$B = 21$: $P = 8$, 10, 20, 22, 26, 32, 34, 40, 44, 46 — 50, 52, ⋯
$B = 22$: $P = 14$, 18, 26, 30, 34, 38, 42, 46 — 58, 62, ⋯
$B = 23$: $P = 8$, 10, 12, 16, 18, 20, 22, 24, 28, 30, 32, 34, 40, 44, 48, 50 — 54, 56, ⋯
$B = 24$: $P = 10$, 14, 26, 38, 46, 50 — 58, 62, ⋯
$B = 25$: $P = 8$, 10, 12, 16, 18, 20, 22, 24, 26, 30, 34, 36, 38, 40, 42, 44, 48, 52, 54 — 58, ⋯

2-string Regular CWH* Braids with $b_v=2\,;b_h=3$.

$B=3$: No solutions.

$B=4$: $P=8$, 12 — 16, 20 — $\cdots$

$B=5$: No solutions.

$B=6$: $P=12$ — 24 — 36 — $\cdots$

$B=7$: No solutions.

$B=8$: $P=8$, 20 — 24, 36 — 40, 52 — $\cdots$

$B=9$: No solutions.

$B=10$: $P=12$ — 32 — 52 — 72 — $\cdots$

$B=11$: No solutions.

$B=12$: $P=8$, 28 — 32, 52 — 56, 76 — $\cdots$

$B=13$: No solutions.

$B=14$: $P=16$ — 44 — 72 — 100 — $\cdots$

$B=15$: No solutions.

$B=16$: $P=8$, 12, 24, 36 — 40, 44, 56, $\cdots$

$B=17$: No solutions.

$B=18$: $P=12$, 20, 24, 28 — 48, 56, 60, 64 — $\cdots$

$B=19$: No solutions.

$B=20$: $P=8$, 16, 28, 44 — 48, 56, $\cdots$

$B=21$: No solutions.

$B=22$: $P=12$, 24 — 56, 68 — 100, $\cdots$

$B=23$: No solutions.

$B=24$: $P=8$, 20, 40, 52 — 56, 68, $\cdots$

$B=25$: No solutions.

1-string Regular CWH* Braids
with b_v=2 ; b_h=4 .

$B = 3$: $P = 10$, 12 — 16, 18 — 22, 24 — ⋯
$B = 4$: No solutions.
$B = 5$: $P = 10$, 14 — 20, 24 — 30, 34 — ⋯
$B = 6$: No solutions.
$B = 7$: $P = 12$, 18, 20 — 26, 32, 34 — ⋯
$B = 8$: No solutions.
$B = 9$: $P = 10$, 12, 16, 22, 24 — 28, 30, 34, 40, 42 — ⋯
$B = 10$: No solutions.
$B = 11$: $P = 10$, 14, 16, 20, 26 — 32, 36, 38, 42, 48 — ⋯
$B = 12$: No solutions.
$B = 13$: $P = 10$, 12, 18, 24, 30, 32 — 36, 38, 44, ⋯
$B = 14$: No solutions.
$B = 15$: $P = 10$, 12, 14, 18, 20, 22, 24, 28, 34, 36 — 40, 42, ⋯
$B = 16$: No solutions.
$B = 17$: $P = 16$, 20, 22, 24, 26, 28, 32, 38 — 50, 54, ⋯
$B = 18$: No solutions.
$B = 19$: $P = 10$, 12, 14, 16, 18, 30, 36, 42, 44 — 48, 50, ⋯
$B = 20$: No solutions.
$B = 21$: $P = 10$,12,18,20,24,26,30,34,36,40,46,48 — 52,54,⋯
$B = 22$: No solutions.
$B = 23$: $P = 10$,22,26,28,30,32,34,38,40,44,50 — 56,68,⋯
$B = 24$: No solutions.
$B = 25$: $P = 10$,12,14,16,18,20,22,24,30,40,42,48,54,56 — 60,62,⋯

2-string Regular CWH* Braids with $b_{\mathrm{V}}=2\,;\,b_{\mathrm{h}}=4$.

$B = 3:$ No solutions.
$B = 4:$ $P = 10\,,\,12\,,\,14 \text{ — } 18\,,\,20\,,\,22 \text{ — } \cdots$
$B = 5:$ No solutions.
$B = 6:$ $P = 10\,,\,18 \text{ — } 22\,,\,30 \text{ — } 34\,,\,42 \text{ — } \cdots$
$B = 7:$ No solutions.
$B = 8:$ $P = 10\,,\,14\,,\,20 \text{ — } 26\,,\,30\,,\,36 \text{ — } \cdots$
$B = 9:$ No solutions.
$B = 10:$ $P = 10\,,\,18\,,\,26 \text{ — } 30\,,\,38\,,\,46 \text{ — } \cdots$
$B = 11:$ No solutions.
$B = 12:$ $P = 12\,,\,14\,,\,18\,,\,22\,,\,28\,,\,30 \text{ — } 36\,,\,38\,,\,42\,,\,\cdots$
$B = 13:$ No solutions.
$B = 14:$ $P = 10\,,\,22\,,\,26 \text{ — } 38\,,\,50\,,\,54 \text{ — } \cdots$
$B = 15:$ No solutions.
$B = 16:$ $P = 10\,,\,12\,,\,18\,,\,30\,,\,36\,,\,38 \text{ — } 42\,,\,44\,,\,50\,,\,\cdots$
$B = 17:$ No solutions.
$B = 18:$ $P = 10\,,\,14\,,\,30\,,\,34\,,\,42 \text{ — } 46\,,\,50\,,\,\cdots$
$B = 19:$ No solutions.
$B = 20:$ $P = 10\,,\,22\,,\,26\,,\,28\,,\,30\,,\,34\,,\,38\,,\,44 \text{ — } 50\,,\,62\,,\,\cdots$
$B = 21:$ No solutions.
$B = 22:$ $P = 14\,,\,18\,,\,34\,,\,42\,,\,50 \text{ — } 58\,,\,62\,,\,78\,,\,\cdots$
$B = 23:$ No solutions.
$B = 24:$ $P = 10, 12, 18, 20, 26, 30, 34, 36, 42, 46, 52, 54 \text{ — } 58, 60, \cdots$
$B = 25:$ No solutions.

1-string Regular CWH* Braids with $b_V=3$; $b_h=1$.

$B = 4:$ $P = 4, 8 — 12, 16 — 20, 24 — \cdots$
$B = 5:$ No solutions.
$B = 6:$ $P = 4, 8 — 16, 20 — 28, 32 — \cdots$
$B = 7:$ No solutions.
$B = 8:$ $P = 4, 8, 12 — 20, 24, 28 — \cdots$
$B = 9:$ No solutions.
$B = 10:$ $P = 4, 8, 12, 16 — 24, 28, 32, 36 — \cdots$
$B = 11:$ No solutions.
$B = 12:$ $P = 4, 8, 16, 20 — 28, 32, 40, 44 — \cdots$
$B = 13:$ No solutions.
$B = 14:$ $P = 4, 8, 12, 16, 20, 24 — 32, 36, 40, 44, 48, 52 — \cdots$
$B = 15:$ No solutions.
$B = 16:$ $P = 4, 8, 12, 20, 24, 28 — 36, 40, 44, 52, 56, 60 — \cdots$
$B = 17:$ No solutions.
$B = 18:$ $P = 4, 8, 16, 20, 28, 32 — 40, 44, 52, 56, 64, 68 — \cdots$
$B = 19:$ No solutions.
$B = 20:$ $P = 4, 8, 12, 16, 24, 28, 32, 36 — 44, 48, \cdots$
$B = 21:$ No solutions.
$B = 22:$ $P = 4, 8, 12, 16, 20, 24, 28, 32, 36, 40 — 48, 52, \cdots$
$B = 23:$ No solutions.
$B = 24:$ $P = 4, 8, 20, 28, 40, 44 — 52, 56, 68, \cdots$
$B = 25:$ No solutions.

2-string Regular CWH* Braids with $b_V=3\,; b_h=1$.

$B = 4$: No solutions.
$B = 5$: $P = 4, 6, 8, 10 \text{ — } 14, 16, 18, 20 \text{ — } \cdots$
$B = 6$: No solutions.
$B = 7$: $P = 6, 12 \text{ — } 20, 26 \text{ — } \cdots$
$B = 8$: No solutions.
$B = 9$: $P = 4, 8, 12, 14, 16 \text{ — } 22, 26, 30, 32, 34 \text{ — } \cdots$
$B = 10$: No solutions.
$B = 11$: $P = 6, 10, 14, 16, 20 \text{ — } 28, 32, 36, 38, 42 \text{ — } \cdots$
$B = 12$: No solutions.
$B = 13$: $P = 4, 6, 8, 12, 22, 24 \text{ — } 30, 32, 34, 38, 48, 50 \text{ — } \cdots$
$B = 14$: No solutions.
$B = 15$: $P = 10, 14, 18, 20, 22, 24, 28 \text{ — } 40, 44, 48, 50, 52, 54, 58 \text{ — } \cdots$
$B = 16$: No solutions.
$B = 17$: $P = 4, 6, 8, 16, 20, 22, 28, 30, 32 \text{ — } 38, 40, 42, \cdots$
$B = 18$: No solutions.
$B = 19$: $P = 6, 12, 14, 18, 24, 28, 30, 36 \text{ — } 44, 50, 52, \cdots$
$B = 20$: No solutions.
$B = 21$: $P = 4, 8, 10, 12, 16, 20, 24, 26, 36, 38, 40 \text{ — } 46, 50, 52, \cdots$
$B = 22$: No solutions.
$B = 23$: $P = 6, 14, 18, 22, 26, 30, 32, 34, 38, 40, 44 \text{ — } 52, 60, 64, \cdots$
$B = 24$: No solutions.
$B = 25$: $P = 4, 6, 8, 10, 12, 14, 16, 20, 24, 30, 40, 46, 48 \text{ — } 54, 56, 58, \cdots$

1-string Regular CWH* Braids
with $b_V=3$; $b_h=2$.

$B = 4$: $P = 6, 10 — 14, 18 — 22, 26 — \cdots$
$B = 5$: No solutions.
$B = 6$: $P = 10, 14 — 22, 26 — \cdots$
$B = 7$: No solutions.
$B = 8$: $P = 6, 14, 18 — 22, 30, 34 — \cdots$
$B = 9$: No solutions.
$B = 10$: $P = 6, 10, 18, 22 — 26, 30, 38, 42 — \cdots$
$B = 11$: No solutions.
$B = 12$: $P = 10, 22, 26 — 34, 46, 50 — \cdots$
$B = 13$: No solutions.
$B = 14$: $P = 6, 10, 18, 26, 30 — 34, 38, 46, \cdots$
$B = 15$: No solutions.
$B = 16$: $P = 6, 10, 14, 22, 30, 34 — 38, 42, 46, \cdots$
$B = 17$: No solutions.
$B = 18$: $P = 14, 26, 34, 38 — 50, 62, 70, 74 — \cdots$
$B = 19$: No solutions.
$B = 20$: $P = 6, 10, 14, 18, 26, 30, 38, 42 — 46, 50, \cdots$
$B = 21$: No solutions.
$B = 22$: $P = 6, 10, 14, 18, 26, 30, 42, 46 — 50, 54, \cdots$
$B = 23$: No solutions.
$B = 24$: $P = 10, 22, 34, 38, 46, 50 — 58, 70, \cdots$
$B = 25$: No solutions.

2-string Regular CWH* Braids with $b_V=3\,;\,b_h=2$.

$B=4$: No solutions.

$B=5$: $P = 6, 8, 10, 12 \text{ — } 16, 18, 20, 22 \text{ — } \cdots$

$B=6$: No solutions.

$B=7$: $P = 6, 10, 12, 16 \text{ — } 20, 24, 26, 30 \text{ — } \cdots$

$B=8$: No solutions.

$B=9$: $P = 8, 10, 14, 16, 20 \text{ — } 26, 28, 32, 34, 38 \text{ — } \cdots$

$B=10$: No solutions.

$B=11$: $P = 6, 10, 12, 14, 18, 20, 24 \text{ — } 28, 32, 34, \cdots$

$B=12$: No solutions.

$B=13$: $P = 6, 8, 12, 14, 16, 18, 22, 24, 28 \text{ — } 32, 34, 38, \cdots$

$B=14$: No solutions.

$B=15$: $P = 10, 14, 16, 20, 22, 26, 28, 32 \text{ — } 40, 44, 46, \cdots$

$B=16$: No solutions.

$B=17$: $P = 6, 8, 10, 12, 16, 18, 20, 22, 26, 30, 32, 36 \text{ — } 40, 42, \cdots$

$B=18$: No solutions.

$B=19$: $P = 6, 10, 12, 18, 20, 22, 24, 26, 28, 30, 34, 36, 40 \text{ — } 44, 48, \cdots$

$B=20$: No solutions.

$B=21$: $P = 8, 10, 16, 20, 22, 32, 34, 38, 40, 44 \text{ — } 50, 52, \cdots$

$B=22$: No solutions.

$B=23$: $P = 6, 12, 14, 16, 18, 22, 24, 26, 28, 30, 34, 36, 38, 42, 44, 48 \text{ — } 52, 58, \cdots$

$B=24$: No solutions.

$B=25$: $P = 6, 8, 10, 12, 14, 16, 20, 24, 26, 28, 30, 32, 34, 38, 40, 42, 46, 48, 52 \text{ — } 56, \cdots$

1-string Regular CWH* Braids with $\mathbf{b_V=3}$; $\mathbf{b_h=3}$.

$B = 4$: $P = 8$, 12 — 16, 20 — 24, 28 — ⋯
$B = 5$: No solutions.
$B = 6$: $P = 8$, 16 — 20, 28 — 32, 40 — ⋯
$B = 7$: No solutions.
$B = 8$: $P = 8$, 12, 20 — 24, 28, 36 — 40, 44, 52 — ⋯
$B = 9$: No solutions.
$B = 10$: $P = 8$, 12, 16, 24 — 28, 32, 36, 44 — ⋯
$B = 11$: No solutions.
$B = 12$: $P = 8$, 16, 20, 28 — 32, 40, 44, 52 — ⋯
$B = 13$: No solutions.
$B = 14$: $P = 8$, 12, 16, 20, 24, 32 — 36, 40, 44, 48, 52, 60 — ⋯
$B = 15$: No solutions.
$B = 16$: $P = 8$, 12, 20, 24, 28, 36 — 40, 44, 52, 56, 60, 68 — ⋯
$B = 17$: No solutions.
$B = 18$: $P = 8$, 16, 20, 28, 32, 40 — 44, 52, 56, 64, 68, 76 — ⋯
$B = 19$: No solutions.
$B = 20$: $P = 8$, 12, 16, 24, 28, 32, 36, 44 — 48, 52, ⋯
$B = 21$: No solutions.
$B = 22$: $P = 8$, 12, 16, 20, 24, 28, 32, 36, 40, 48 — 52, 56, ⋯
$B = 23$: No solutions.
$B = 24$: $P = 8$, 20, 28, 40, 44, 52 — 56, 68, ⋯
$B = 25$: No solutions.

2-string Regular CWH* Braids with b_v=3 ; b_h=3 .

$B = 4$: No solutions.
$B = 5$: $P = 8, 10, 12, 14 — 18, 20, 22, 24 — 28, 30, \cdots$
$B = 6$: No solutions.
$B = 7$: $P = 10, 16 — 24, 30 — 38, 44 — \cdots$
$B = 8$: No solutions.
$B = 9$: $P = 8, 10, 20, 22 — 26, 28, 38, 40 — \cdots$
$B = 10$: No solutions.
$B = 11$: $P = 10, 18, 24 — 32, 40, 46 — \cdots$
$B = 12$: No solutions.
$B = 13$: $P = 8, 12, 18, 28, 30 — 34, 38, 44, \cdots$
$B = 14$: No solutions.
$B = 15$: $P = 10, 14, 20, 26, 32 — 40, 44, 50, \cdots$
$B = 16$: No solutions.
$B = 17$: $P = 8, 10, 12, 16, 26, 36, 38 — 42, 44, \cdots$
$B = 18$: No solutions.
$B = 19$: $P = 10, 14, 18, 26, 28, 34, 40 — 48, 52, \cdots$
$B = 20$: No solutions.
$B = 21$: $P = 8, 10, 20, 34, 44, 46 — 50, 52, \cdots$
$B = 22$: No solutions.
$B = 23$: $P = 16, 18, 22, 28, 32, 34, 42, 48 — 62, 64, \cdots$
$B = 24$: No solutions.
$B = 25$: $P = 8, 10, 12, 20, 24, 30, 32, 34, 40, 42, 52, 54 — 58, 60, \cdots$

1-string Regular CWH* Braids with $b_V=3$; $b_h=4$.

$B = 4$: $P =$ 10, 14 — 18, 22 — 26, 30 — $\cdots$
$B = 5$: No solutions.
$B = 6$: $P =$ 10, 14 — 22, 26 — 34, 38 — $\cdots$
$B = 7$: No solutions.
$B = 8$: $P =$ 14, 18, 22 — 30, 34, 38 — $\cdots$
$B = 9$: No solutions.
$B = 10$: $P =$ 10, 18, 22, 26 — 30, 38, 42, 46 — $\cdots$
$B = 11$: No solutions.
$B = 12$: $P =$ 10, 14, 22, 26 — 34, 38, 46, 50 — $\cdots$
$B = 13$: No solutions.
$B = 14$: $P =$ 10, 14, 26, 30, 34 — 38, 42, 54, 58, 62 — $\cdots$
$B = 15$: No solutions.
$B = 16$: $P =$ 10, 14, 18, 22, 30, 34, 38 — 42, 46, $\cdots$
$B = 17$: No solutions.
$B = 18$: $P =$ 14, 26, 34, 38 — 50, 62, 70, 74 — $\cdots$
$B = 19$: No solutions.
$B = 20$: $P =$ 10, 14, 18, 22, 26, 30, 38, 42, 46 — 50, 54, $\cdots$
$B = 21$: No solutions.
$B = 22$: $P =$ 10, 14, 18, 30, 34, 42, 46, 50 — 54, 58, $\cdots$
$B = 23$: No solutions.
$B = 24$: $P =$ 10, 22, 26, 34, 46, 50 — 58, 70, $\cdots$
$B = 25$: No solutions.

2-string Regular CWH* Braids with $b_v=3\,;b_h=4$.

$B=4$: No solutions.
$B=5$: $P=$ 10, 12, 14, 16 — 20, 22, 24, 26 — $\cdots$
$B=6$: No solutions.
$B=7$: $P=$ 10, 12, 14, 16, 18, 20 — 24, 26, 28, 30, 32, 34 — $\cdots$
$B=8$: No solutions.
$B=9$: $P=$ 10, 14, 16, 20, 22 — 28, 32, 34, 38, 40 — $\cdots$
$B=10$: No solutions.
$B=11$: $P=$ 10, 12, 14, 18, 20, 24, 26, 28 — 32, 34, 36, $\cdots$
$B=12$: No solutions.
$B=13$: $P=$ 12, 14, 16, 18, 22, 24, 28, 30, 32 — 38, 40, $\cdots$
$B=14$: No solutions.
$B=15$: $P=$ 10, 14, 16, 20, 22, 26, 28, 32, 34 — 40, 44, $\cdots$
$B=16$: No solutions.
$B=17$: $P=$ 10, 12, 16, 18, 20, 22, 24, 26, 30, 32, 36, 38, 40 — 44, 46, $\cdots$
$B=18$: No solutions.
$B=19$: $P=$ 10, 12, 14, 18, 20, 22, 24, 26, 30, 34, 36, 40, 42, 44 — 48, 50, $\cdots$
$B=20$: No solutions.
$B=21$: $P=$ 10, 14, 16, 20, 22, 28, 32, 34, 38, 40, 44, 46 — 52, 56, $\cdots$
$B=22$: No solutions.
$B=23$: $P=$ 12, 14, 16, 22, 24, 26, 28, 30, 32, 34, 36, 38, 42, 44, 48, 50, 52 — 58, 60, $\cdots$
$B=24$: No solutions.
$B=25$: $P=$ 10, 12, 14, 16, 18, 20, 24, 26, 28, 30, 32, 34, 38, 40, 42, 46, 48, 52, 54, 56 — 60, $\cdots$

1-string Regular CWH* Braids with $\mathrm{b_V}=4$; $\mathrm{b_h}=1$.

$B=5:\ P=4,6,8,10 \text{ — } 14,16,18,20 \text{ — } \cdots$
$B=6:\ P=6,10 \text{ — } 18,22 \text{ — } \cdots$
$B=7:\ P=4,10,12 \text{ — } 18,24,26 \text{ — } \cdots$
$B=8:\ P=6,10,14 \text{ — } 22,26,30 \text{ — } \cdots$
$B=9:\ P=4,6,8,12,14,16 \text{ — } 22,24,26,\cdots$
$B=10:\ P=10,18 \text{ — } 30,38 \text{ — } \cdots$
$B=11:\ P=4,6,10,16,18,20 \text{ — } 26,28,32,\cdots$
$B=12:\ P=6,10,14,18,22 \text{ — } 30,34,38,42,46 \text{ — } \cdots$
$B=13:\ P=4,8,10,12,16,22,24 \text{ — } 30,34,\cdots$
$B=14:\ P=6,18,22,26 \text{ — } 34,46,50,54 \text{ — } \cdots$
$B=15:\ P=4,6,10,12,14,18,20,24,26,28 \text{ — } 34,36,\cdots$
$B=16:\ P=10,14,18,30 \text{ — } 42,46,50,62 \text{ — } \cdots$
$B=17:\ P=4,6,8,10,16,22,24,28,30,32 \text{ — } 38,40,\cdots$
$B=18:\ P=6,10,26,30,34 \text{ — } 42,46,62,\cdots$
$B=19:\ P=4,12,14,16,18,22,24,28,34,36 \text{ — } 42,50,\cdots$
$B=20:\ P=6,10,18,22,26,30,34,38 \text{ — } 46,50,\cdots$
$B=21:\ P=4,6,8,10,12,16,18,20,24,26,30,36,38,40 \text{ — } 46,48,\cdots$
$B=22:\ P=10,14,26,34,42 \text{ — } 54,58,\cdots$
$B=23:\ P=4,6,10,14,18,22,30,32,34,36,40,42,44 \text{ — } 50,52,\cdots$
$B=24:\ P=6,18,22,26,30,38,42,46 \text{ — } 54,66,\cdots$
$B=25:\ P=4,8,10,12,16,18,20,22,24,28,30,32,40,46,48 \text{ — } 54,58,\cdots$

2-string Regular CWH* Braids with $b_v=4$; $b_h=1$.

$B = 5$: No solutions.
$B = 6$: $P = 4, 12 — 16, 24 — \cdots$
$B = 7$: No solutions.
$B = 8$: $P = 8, 12 — 24, 28 — 40, 44 — \cdots$
$B = 9$: No solutions.
$B = 10$: $P = 4, 8, 12 — 24, 28, 32 — \cdots$
$B = 11$: No solutions.
$B = 12$: $P = 16, 20 — 40, 44 — 64, 68 — \cdots$
$B = 13$: No solutions.
$B = 14$: $P = 4, 12, 16, 20 — 32, 40, 44, 48 — \cdots$
$B = 15$: No solutions.
$B = 16$: $P = 8, 20, 24, 28 — 40, 52, 56, 60 — \cdots$
$B = 17$: No solutions.
$B = 18$: $P = 4, 8, 12, 16, 20, 24, 28 — 40, 44, 48, \cdots$
$B = 19$: No solutions.
$B = 20$: $P = 12, 24, 32, 36 — 52, 64, \cdots$
$B = 21$: No solutions.
$B = 22$: $P = 4, 12, 16, 20, 24, 32, 36 — 48, 56, \cdots$
$B = 23$: No solutions.
$B = 24$: $P = 8, 28, 40, 44 — 56, 76, 88, \cdots$
$B = 25$: No solutions.

1-string Regular CWH* Braids with $b_v=4\,;b_h=2$.

$B = 5:$ $P = 6, 8, 10, 12 \text{ — } 16, 18, 20, 22 \text{ — } \cdots$
$B = 6:$ No solutions.
$B = 7:$ $P = 8, 10, 16 \text{ — } 22, 24, 30 \text{ — } \cdots$
$B = 8:$ No solutions.
$B = 9:$ $P = 6, 8, 12, 14, 20 \text{ — } 24, 26, 30, 32, 38 \text{ — } \cdots$
$B = 10:$ No solutions.
$B = 11:$ $P = 6, 8, 12, 18, 24 \text{ — } 28, 30, 34, 40, 46 \text{ — } \cdots$
$B = 12:$ No solutions.
$B = 13:$ $P = 8, 14, 16, 20, 22, 28 \text{ — } 34, 40, 42, \cdots$
$B = 14:$ No solutions.
$B = 15:$ $P = 6, 8, 10, 12, 16, 18, 20, 24, 26, 32 \text{ — } 36, 38, \cdots$
$B = 16:$ No solutions.
$B = 17:$ $P = 6, 8, 10, 12, 14, 18, 30, 36 \text{ — } 40, 42, \cdots$
$B = 18:$ No solutions.
$B = 19:$ $P = 8, 20, 22, 24, 26, 28, 32, 34, 40 \text{ — } 46, 58, \cdots$
$B = 20:$ No solutions.
$B = 21:$ $P = 6, 8, 12, 16, 18, 22, 24, 30, 32, 36, 38, 44 \text{ — } 48, 50, \cdots$
$B = 22:$ No solutions.
$B = 23:$ $P = 6, 8, 12, 14, 16, 18, 20, 24, 36, 42, 48 \text{ — } 52, 54, \cdots$
$B = 24:$ No solutions.
$B = 25:$ $P = 8, 10, 20, 26, 28, 30, 32, 34, 36, 38, 40, 44, 46, 52 \text{ — } 58, 60, \cdots$

2-string Regular CWH* Braids with $\mathrm{b_v}=4\,;\mathrm{b_h}=2$.

$B = 5$: No solutions.
$B = 6$: $P = 6, 8, 12, 14 — 18, 20, 24, 26 — \cdots$
$B = 7$: No solutions.
$B = 8$: $P = 6, 12, 18 — 22, 28, 34 — \cdots$
$B = 9$: No solutions.
$B = 10$: $P = 8, 10, 14, 16, 22 — 28, 30, 34, 36, 42 — \cdots$
$B = 11$: No solutions.
$B = 12$: $P = 6, 10, 12, 18, 20, 26 — 30, 34, 36, \cdots$
$B = 13$: No solutions.
$B = 14$: $P = 6, 8, 12, 18, 24, 30 — 34, 36, 40, \cdots$
$B = 15$: No solutions.
$B = 16$: $P = 14, 20, 22, 26, 28, 34 — 46, 52, 54, \cdots$
$B = 17$: No solutions.
$B = 18$: $P = 6, 8, 12, 16, 22, 24, 26, 30, 32, 38 — 42, 44, \cdots$
$B = 19$: No solutions.
$B = 20$: $P = 6, 10, 12, 14, 18, 30, 36, 42 — 46, 50, \cdots$
$B = 21$: No solutions.
$B = 22$: $P = 8, 10, 20, 26, 28, 30, 32, 38, 40, 46 — 52, 54, \cdots$
$B = 23$: No solutions.
$B = 24$: $P = 6, 12, 14, 18, 22, 28, 30, 36, 38, 42, 44, 50 — 54, 60, \cdots$
$B = 25$: No solutions.

1-string Regular CWH* Braids with $b_v=4$; $b_h=3$.

$B = 5:$ $P = 8, 10, 12, 14 \text{—} 18, 20, 22, 24 \text{—} \cdots$
$B = 6:$ $P = 10, 14 \text{—} 22, 26 \text{—} 34, 38 \text{—} \cdots$
$B = 7:$ $P = 8, 10, 12, 14, 16, 18 \text{—} 22, 24, 26, 28, 30, 32 \text{—} \cdots$
$B = 8:$ $P = 10, 14, 18 \text{—} 26, 30, 34 \text{—} \cdots$
$B = 9:$ $P = 8, 14, 16, 20, 22 \text{—} 26, 32, 34, 38, 40 \text{—} \cdots$
$B = 10:$ $P = 10, 14, 18, 22 \text{—} 30, 34, 38, 42 \text{—} \cdots$
$B = 11:$ $P = 8, 10, 12, 16, 18, 20, 24, 26 \text{—} 30, 32, 34, \cdots$
$B = 12:$ $P = 10, 14, 22, 26 \text{—} 34, 38, 46, 50 \text{—} \cdots$
$B = 13:$ $P = 8, 10, 12, 14, 20, 22, 24, 28, 30 \text{—} 34, 36, \cdots$
$B = 14:$ $P = 14, 18, 22, 26, 30 \text{—} 42, 46, 50, 54, 58 \text{—} \cdots$
$B = 15:$ $P = 8, 10, 14, 16, 20, 26, 28, 32, 34 \text{—} 38, 40, \cdots$
$B = 16:$ $P = 10, 14, 18, 22, 26, 30, 34 \text{—} 42, 46, \cdots$
$B = 17:$ $P = 8, 10, 12, 14, 16, 18, 22, 24, 28, 30, 32, 36, 38 \text{—} 42, 44, \cdots$
$B = 18:$ $P = 10, 22, 34, 38 \text{—} 46, 58, 70, 74 \text{—} \cdots$
$B = 19:$ $P = 8, 12, 14, 16, 18, 20, 24, 26, 28, 32, 34, 36, 40, 42 \text{—} 46, 50, \cdots$
$B = 20:$ $P = 10, 14, 18, 22, 26, 30, 34, 38, 42 \text{—} 50, 54, \cdots$
$B = 21:$ $P = 8, 10, 14, 20, 22, 26, 28, 32, 38, 40, 44, 46 \text{—} 50, 52, \cdots$
$B = 22:$ $P = 10, 14, 26, 30, 34, 38, 42, 46 \text{—} 54, 58, \cdots$
$B = 23:$ $P = 8, 10, 12, 14, 16, 18, 20, 22, 24, 30, 32, 34, 40, 42, 44, 48, 50 \text{—} 54, 56, \cdots$
$B = 24:$ $P = 14, 22, 26, 38, 46, 50 \text{—} 62, 70, \cdots$
$B = 25:$ $P = 8, 10, 12, 16, 18, 20, 22, 24, 26, 30, 32, 34, 36, 38, 40, 44, 46, 48, 52, 54 \text{—} 58, \cdots$

2-string Regular CWH* Braids with $b_V=4\,; b_h=3$.

$B=5$: No solutions.
$B=6$: $P=8\,,\,16 — 20\,,\,28 — 32\,,\,40 — \cdots$
$B=7$: No solutions.
$B=8$: $P=12\,,\,16 — 28\,,\,32 — 44\,,\,48 — \cdots$
$B=9$: No solutions.
$B=10$: $P=8\,,\,24 — 28\,,\,44 — 48\,,\,64 — \cdots$
$B=11$: No solutions.
$B=12$: $P=12\,,\,20 — 36\,,\,44 — 60\,,\,68 — \cdots$
$B=13$: No solutions.
$B=14$: $P=8\,,\,12\,,\,16\,,\,32 — 36\,,\,40\,,\,44\,,\,60 — \cdots$
$B=15$: No solutions.
$B=16$: $P=28 — 60 — 92 — \cdots$
$B=17$: No solutions.
$B=18$: $P=8\,,\,16\,,\,20\,,\,24\,,\,40 — 44\,,\,52\,,\,56\,,\,60\,,\,76 — \cdots$
$B=19$: No solutions.
$B=20$: $P=12\,,\,36 — 52\,,\,76 — 92\,,\,116 — \cdots$
$B=21$: No solutions.
$B=22$: $P=8\,,\,16\,,\,20\,,\,24\,,\,32\,,\,48 — 52\,,\,60\,,\,64\,,\,\cdots$
$B=23$: No solutions.
$B=24$: $P=12\,,\,16\,,\,32\,,\,36\,,\,44 — 60\,,\,64\,,\,80\,,\,\cdots$
$B=25$: No solutions.

1-string Regular CWH* Braids with $b_v=4\,;\,b_h=4$.

$B = 5:$ $P = 10\,,\ 12\,,\ 14\,,\ 16 — 20\,,\ 22\,,\ 24\,,\ 26 — \cdots$
$B = 6:$ No solutions.
$B = 7:$ $P = 10\,,\ 16\,,\ 18 — 24\,,\ 30\,,\ 32 — \cdots$
$B = 8:$ No solutions.
$B = 9:$ $P = 12\,,\ 14\,,\ 16\,,\ 20\,,\ 22\,,\ 24 — 30\,,\ 32\,,\ 34\,,\ 38\,,\ 40\,,\ 42 — \cdots$
$B = 10:$ No solutions.
$B = 11:$ $P = 10\,,\ 12\,,\ 16\,,\ 18\,,\ 20\,,\ 24\,,\ 26\,,\ 28 — 32\,,\ 34\,,\ 38\,,\ \cdots$
$B = 12:$ No solutions.
$B = 13:$ $P = 10\,,\ 16\,,\ 22\,,\ 24\,,\ 28\,,\ 30 — 36\,,\ 42\,,\ 48\,,\ \cdots$
$B = 14:$ No solutions.
$B = 15:$ $P = 10\,,\ 12\,,\ 14\,,\ 16\,,\ 18\,,\ 20\,,\ 24\,,\ 26\,,\ 28\,,\ 32\,,\ 34\,,\ 36 — 40\,,\ 42\,,\ \cdots$
$B = 16:$ No solutions.
$B = 17:$ $P = 10\,,\ 12\,,\ 16\,,\ 18\,,\ 22\,,\ 24\,,\ 28\,,\ 30\,,\ 32\,,\ 36\,,\ 38\,,\ 40 — 44\,,\ 46\,,\ \cdots$
$B = 18:$ No solutions.
$B = 19:$ $P = 14\,,\ 16\,,\ 18\,,\ 20\,,\ 22\,,\ 24\,,\ 34\,,\ 36\,,\ 40\,,\ 42 — 52\,,\ 54\,,\ \cdots$
$B = 20:$ No solutions.
$B = 21:$ $P = 10, 12, 16, 18, 20, 22, 24, 26, 30, 32, 36, 38, 40, 44, 46, 48 — 52, 54, \cdots$
$B = 22:$ No solutions.
$B = 23:$ $P = 10, 12, 14, 16, 22, 24, 30, 32, 34, 36, 40, 42, 44, 48, 50, 52 — 56, 58, \cdots$
$B = 24:$ No solutions.
$B = 25:$ $P = 10, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 40, 46, 48, 52, 54 — 60, 66, \cdots$

2-string Regular CWH* Braids with $b_v=4$; $b_h=4$.

$B=5$: No solutions.
$B=6$: $P=10, 12, 16, 18$ — $22, 24, 28, 30$ — $\cdots$
$B=7$: No solutions.
$B=8$: $P=10, 14, 18, 22$ — $26, 30, 34, 38$ — $\cdots$
$B=9$: No solutions.
$B=10$: $P=10, 16, 18, 22, 24$ — $30, 36, 38, 42, 44$ — $\cdots$
$B=11$: No solutions.
$B=12$: $P=10, 14, 18, 22, 26, 30$ — $34, 38, 42, \cdots$
$B=13$: No solutions.
$B=14$: $P=12, 16, 22, 24, 26, 30, 32, 34$ — $40, 44, 50, \cdots$
$B=15$: No solutions.
$B=16$: $P=10, 14, 18, 22, 30, 34$ — $42, 46, \cdots$
$B=17$: No solutions.
$B=18$: $P=10, 12, 16, 20, 24, 26, 30, 32, 34, 38, 40, 42$ — $46, 48, \cdots$
$B=19$: No solutions.
$B=20$: $P=10, 18, 22, 30, 34, 38, 42, 46$ — $50, 58, \cdots$
$B=21$: No solutions.
$B=22$: $P=10, 14, 16, 20, 24, 28, 30, 34, 40, 42, 46, 48$ — $54, 58, \cdots$
$B=23$: No solutions.
$B=24$: $P=18, 22, 26, 30, 42, 46, 50, 54$ — $66, 70, \cdots$
$B=25$: No solutions.

REFERENCES

1. Introducing Grid-diagrams in Braiding; Pamphlet No.1 (1991).
A.G.Schaake, J.C.Turner, and D.A.Sedgwick.

Copies of this pamphlet, and item 1, *may be obtained from:*
A.G. Schaake, 21 Sundown Cresc., Hamilton, New Zealand.